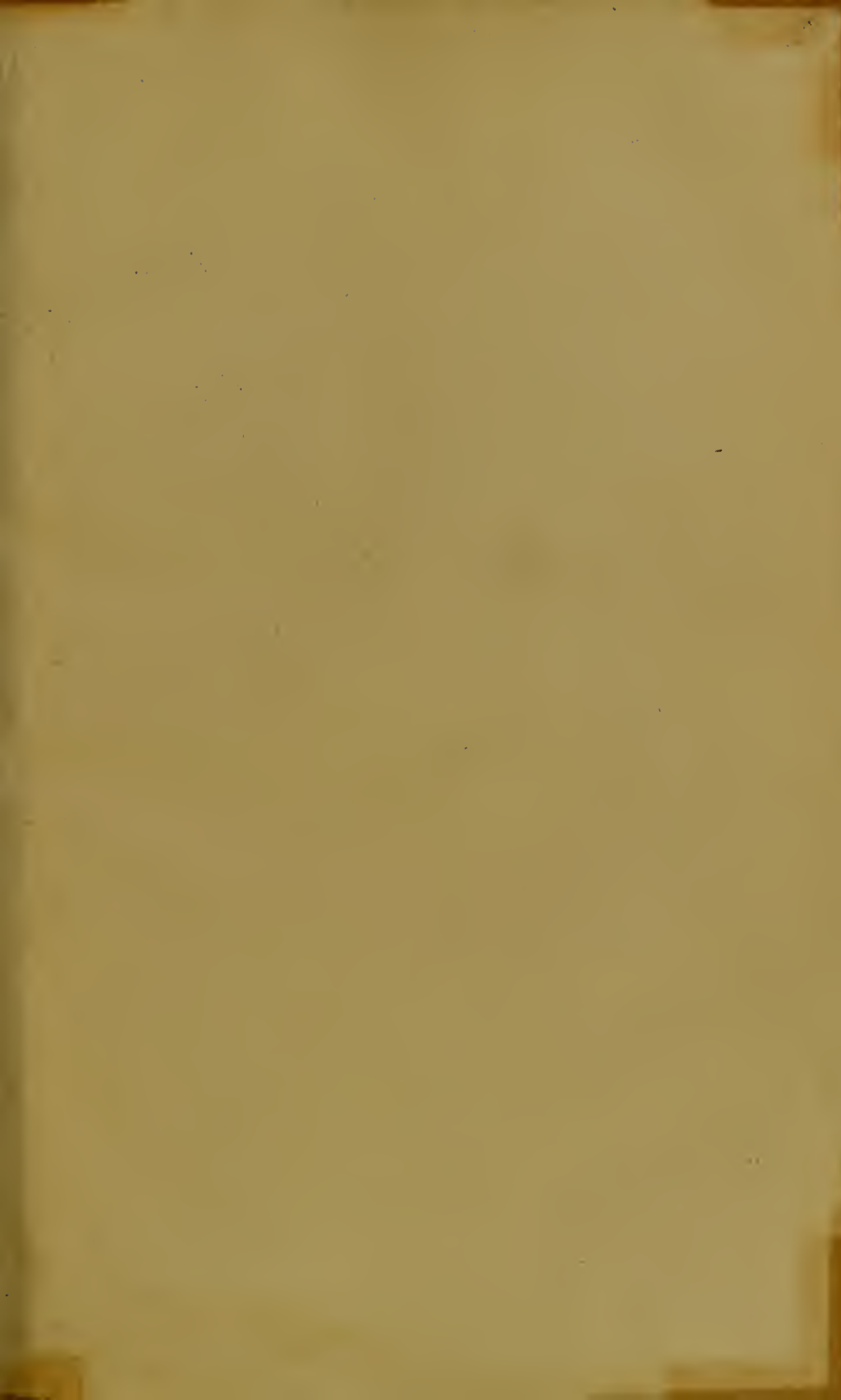
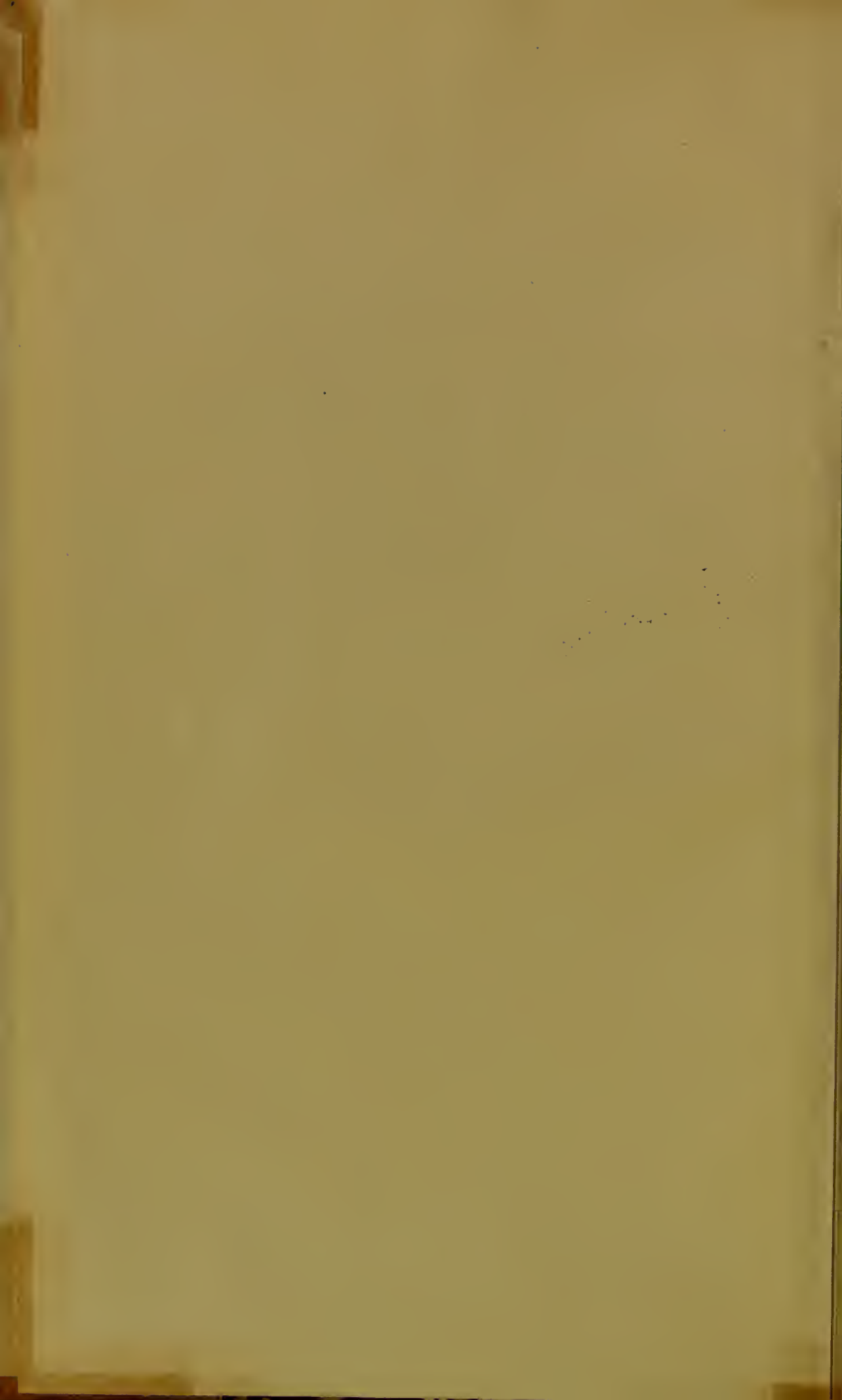


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A COMPREHENSIVE
TREATISE
UPON THE
SYMPTOMS, CONSEQUENCES, NATURE,
AND TREATMENT
OF
VENEREAL, OR SYPHILITIC,
DISEASES.

TRANSLATED FROM
THE SEVENTH FRENCH EDITION OF
F. SWEDIAUR, M.D.

Scientiæ veros fines cogitent; nec eam aut animi causâ petant, aut ad contentionem, aut ut alios despiciant, aut ad commodum, aut ad famum, aut ad potentiam, aut hujusmodi inferiora; sed ad meritum, et usus vitæ, eamque in charitate perficient et regant.

BACO DE VERULAM, *Præf. ad Novum Organum.*

IN TWO VOLUMES.

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A

TREATISE

ON THE

EFFECTS OF THE SYPHILITIC VIRUS

ON THE

WHOLE ANIMAL ECONOMY.

CHAPTER I.

OF SYPHILIS, OR THE SYPHILITIC DISEASE PROPERLY
SO CALLED.

“The only means of improving medicine, and all other useful sciences, is that of observing with attention, without prejudice, and simply stating what one has seen and observed.”

THE Syphilitic disease, or Syphilis, from the Greek words σῦς a pig, and φιλία love, that is to say, filthy or impure love * commonly called the Pox, or the Venereal Disease, is a contagious disorder, which at present can only be pro-

* This word was first employed by *Fracastorius*, in his fine poem on this disease. That author not having given us the etymology of the word, I have hazarded the one in the text, in preference to that given by Van Swieten and others.

pagated by immediate contact, and most commonly by coition. The peculiar virus, called syphilitic, or venereal, before it produces in the system that assemblage of symptoms we call Syphilis, generally occasions ulcers, blennorrhagies, or other sensible effects on the surface of the body, in the part where it was first applied. From thence it appears to be absorbed by the lymphatic or absorbent vessels, into the blood, in a greater or less space of time, and then produces, in different parts of the body, the peculiar symptoms by which it is characterised in our times: such as ulcers in the throat and nose, red or brown spots on the skin, spreading ulcers in different parts of it, particularly pustules, principally on the head, and the edge of the hair, which frequently turn into ulcers covered with a scab: pains in the bones, a swelling of the periosteum; or tumours in the substance of the bones themselves, (principally in those which are not covered with muscles); caries, and in short, corruption of the whole body, and death.

All these symptoms rarely occur together in our times, at the same time, and in the same person; but it is the greater or smaller number of such symptoms, which constitute the disease in question, properly called Syphilis, or the Venereal Disease.

These symptoms are the effects of a peculiar acrimony, a specific animal poison, or virus *sui generis*, commonly called the Venereal or Syphilitic Virus.

This virus, as I have already mentioned, is now communicated, at least in Europe, only by immediate contact with an infected person; most commonly indeed, it is necessary in order to produce infection, that the matter impregnated with the virus should be applied for some length of time on the healthy surface of some part of the human body.

This communication commonly takes place in the union of the two sexes; and the parts of generation being thus most exposed to the contact of the virus, it is in them that the first effects and symptoms are generally perceived.

These local symptoms are the same in both sexes: an inflammation of the mucous membrane, with an acrid and virulent discharge from the genital parts, or little corroding ulcers in the same organs, which spread by degrees, and are frequently followed by a swelling in the glands of the groin. After one or more of these symptoms have taken place for a longer or shorter period, ulcers commonly appear in the tonsils or uvula, in the palate or in the pharynx, and spots or pustules, generally of a deep brown or red, break out in different parts of the surface of the body, but particularly on the breast, or on the forehead, at the root of the hair: these pustules are soon covered with yellowish crusts, and often turn into ulcers. If these symptoms are neglected, or badly treated, the virus attacks the bones of the palate and nose, or occasions pains, tumours, or caries, in

one or several bones, particularly the frontal bone, the tibia, the sternum, the clavicle, radius or elbow, the bones of the skull, &c. Such is now the common progress of the syphilitic virus, though it is sometimes observed, that it will produce immediately after coition, a swelling of the inguinal glands, without being preceded by a discharge, or an ulcer, or any other morbid and visible affection in the genitals; and sometimes, though more rarely, the virus is immediately absorbed and carried into the blood, where it produces the effects above-mentioned, without any blennorrhagia, ulcer, or swelling in the inguinal glands.

I have said that coition is the most common way in which syphilis, or the venereal disease, is now communicated; notwithstanding, it often happens that, when other parts of a healthy person come in contact with the virus in some part of an infected person, it will adhere to the healthy part, and begin by exerting its action upon it: then, commonly, after having produced an ulcer, the virus is carried by the absorbent vessels, into the neighbouring lymphatic glands, or into the blood, where it manifests itself by the symptoms described above. But, it sometimes happens in this case, as in the other, of which I have seen many examples, that the virus is absorbed into the blood, without producing the least affection or symptom on the surface of the body; and thus carried directly into

the system, there first begins to show its baneful effects.

The most ordinary way of communicating the infection, next to that of the union of the sexes, is by contact of the hands and fingers with an affected part, particularly if the sound parts exposed to contact, are affected with any sore, or accidental excoriation. Of this, surgeons, accoucheurs, and anatomists, furnish, unfortunately, too many examples.

In all these cases, we observe, that for infection to take place, it is necessary in general, that the sound part should be in contact with the fluid virus of a blennorrhagia, or a syphilitic ulcer. Sometimes, the infection also takes place in the anus and rectum. Another way, not less common, is by the mouth; and it is thus, that many children are infected by their nurses, and *vice versâ*, healthy nurses by infected children. But, it is chiefly the nipple which then becomes the seat of the disease. However, it sometimes happens, that the disorder is thus communicated by kisses from mouth to mouth, between the child and the nurse, as also between adults. I saw an innocent young girl, only eight years old, infected in this manner; and the consequence was an ulcer in the nose, followed by caries of one of the ossa spongiosa.

Some modern writers affirm, that one may catch the venereal disease by sleeping in the same bed with, or after an infected person. But,

after the most attentive observation, I can affirm, that such cases happen at least very rarely in our times, if ever, particularly in adults. We never see sick nurses infected in the hospitals, where they are night and day with persons who go through all the stages of the disease. The fact is, that venereal patients are apt to deceive themselves in these cases, or rather, they wish to impose on the physicians and surgeons; and thus the most absurd, and most improbable opinions on the propagation of this disorder, are easily propagated; and particularly among the lower classes. Hence, the idea so generally received in France, that this disease may be caught by going to the necessary, after an infected person, and the general prejudice against sitting down on the seat, from which arises the universal filthiness of those places all over France, both in town and country. Notwithstanding which, nothing is more false in general; and if there should be any authentic cases or facts which prove that the disease may be caught in that manner, they are so rare, that they hardly deserve to be taken into consideration. Thus, for instance, I would allow, that a man going to the necessary after another, who has some venereal affection in the genital organs, and rubbing the member against the place touched by the infected person, might get the blennorrhagia, or a syphilitic ulcer in the same part. Hence arise, also, so many ridiculous stories, which one

hears so often in different countries from *monks*, about the way in which they have been deceived and infected with this disease.

However the following fact, which was ascertained by a friend of mine in Edinburgh, in 1787, will show, that there are cases in which the infection may occasionally take place in an unusual manner. He was consulted by the mother of two young girls, whose parents he was perfectly acquainted with, and whom he attended as their regular physician. The eldest was twelve years old, the youngest ten. They both had ulcers and eruptions on different parts of the body, without any affection in the genitals. The mother had taken notice of it, only a short time before. My friend judged at first sight, that these eruptions were syphilitic; but knowing, as physician to the family for many years past, that the father and mother were in good health, and that neither of them ever had any syphilitic complaint, he made the most particular enquiries; and finding that the two girls were perfectly innocent, and according to the report of their mother, quite free from any local affection, he asked if they had never slept in the same bed with any infected person. The mother answered, that they had never slept out of their own bed, except sometimes of late with a maid-servant, whom they were very fond of, and who appeared perfectly healthy. The servant was called in, and asked in presence of her mistress, if she had no eruption of any kind on her skin;

she positively declared she had not. My friend communicated his suspicions to the mistress, who made the servant undress before them; when several decidedly syphilitic spots and eruptions were seen on different parts of her body; and on examining her head more particularly, there appeared a complete corona veneris. The servant left the house secretly the same day, and was never heard of afterwards. The two children were treated with mercury, and were cured in a few weeks.

This fact evidently proves, that even now, the syphilitic disease is sometimes communicated by the simple contact of one naked body with another, without coition, particularly in young persons, whose skin is more tender. *Sydenham* had already made the same remark: he says, that he had observed more than once, that children who lay in the same bed with their parents or servants, who had the infection, caught it themselves; and he adds, with his usual sagacity, that children sleeping naked with an infected person may get the disorder, though adults, whose skin is harder, are much less capable of catching the infection merely by lying together without coition. In fact, the case is very different with children, whose tender skin receives the infection much more easily in this manner.

Another question of great importance, which I did not dare to decide for a long time, is, whether syphilis can be conveyed to children by the act of generation, or to speak more precisely,

whether an infected father, can communicate the disease to a future foetus during the venereal act; or, if a constitutionally infected mother, who has no local complaint in the genital parts, can communicate the virus to the foetus in the uterus, by means of the circulation of the blood?

A remarkable case which happened and came to my notice some years ago in London, will throw light on this point of doctrine, and prove that this disease may sometimes be communicated to children by the father through coition.

One of the dragoon guards had a syphilitic ulcer in his throat which resisted the use of mercury for a long time. During the treatment he cohabited with his wife, who never had had any syphilitic symptom, and who is still in perfect health. The child that was the offspring of this cohabitation, complaining, and appearing ill some weeks after its birth, among other parts, its throat was examined by the surgeon, where a syphilitic ulcer was discovered in the very same spot as that of the father. I saw both the father and son, who are now perfectly well.

I witnessed lately another fact, where a child gave its nurse ulcers in the nipples, a few days after its birth, which were rapidly followed by a general infection of the nurse, who was previously in perfect health: the child died in three weeks with evident symptoms of the same disease. In this case, the mother had during pregnancy evident symptoms of a general infection;

but it still remains doubtful whether the child got the infection from the mother or from the father.

I know that there is now a reigning family in Europe, of which all the children are born with the syphilitic germ in their bodies, and of which none survived, till they determined at length to administer mercury to a she-ass from which the milk was taken for the nourishment of the last-born child.

Here then, the point is decisive with respect to the father; but as to the mother, notwithstanding all the pains I have taken, I have never yet been able to discover one direct and well-ascertained fact, which proves to conviction that the syphilitic disease can be communicated by the mother to the foetus in the womb. This is, however probable, as we have several positive facts of the small-pox being sometimes communicated in that manner.

The infected infants which have fallen under my observation, and also under that of some of my friends, whose practice gives them frequent opportunities of seeing new-born children, would rather seem to be unfavourable to this opinion. Neither I, nor any of my medical friends, have ever been able to discover ulcers, or other external marks of syphilis in children at the moment of their birth; and we may suppose with sufficient probability, that the symptoms which appear in four, six, eight days, or even later after the birth, in the parts of generation, the anus, the lips,

the mouth, &c. of such children, as well as uniform discharge from the genitals, or from the eyes, which is sometimes observed, proceed from the infection which was communicated to them in their passage through the vagina of the mother, by ulcers in that part : for the skin of a child is then almost as tender as the red or secreting surfaces of the body, such as the glans penis, the lips, &c. ; and this is undoubtedly the most frequent case, in which the immediate absorption of the syphilitic virus may take place.

Another very important point which remains still to be ascertained, is, whether the syphilitic virus, when absorbed into the system, ever infects the milk, and if, consequently, the infection can be communicated by means of that liquid from the mother or nurse to the child.

From what I have said, all the different ways by which the syphilitic virus can now be propagated in Europe, appear to be reduced to the following :

1. The coition of a healthy person with another evidently affected with a virulent discharge, or with syphilitic ulcers in the genitals : this is the most frequent way.

We must observe here, that a puriform or purulent discharge from the genitals of either sex, as well as ulcers in those parts which owe their origin to any other cause than the syphilitic virus, such as that of tetters, leprosy, or cancer, are never followed by ulcers in the uvula or tonsils,

nor with pains, swellings, or caries of the bones, which are the characteristic symptoms of syphilis.

2. The coition of a healthy person with another, sound in appearance, but in whose genital organs the virus lodges, though no evident symptom of disease has yet made its appearance. Thus, a woman who has received the infection from a man, may, during several days (and this often happens) infect one or more men with whom she cohabits, though no symptom of the disease can be discovered in her body, and reciprocally, a man may infect women in the same way. Such cases often occur in practice, especially in the capitals of Europe.*

I saw one myself, a short time since, which might make one believe, that the virus may sometimes be communicated and propagated,

* A very interesting question, and which is therefore very often agitated, is to ascertain how and when the infection can be communicated by a person who has just received it, to another, who is sound. As to external ulcers, or any acrid discharge, there is no doubt, but if there is no apparent affection of the genitals, many persons, and particularly women, think they cannot communicate the disorder without first feeling affected by it themselves. My opinion is, that the complaint may be communicated by coition, though the person infected has no apparent symptoms of blennorrhagia or ulcers, nor any uneasy sensation; and that the symptoms may not manifest themselves till eight or ten days afterwards, or even perhaps not at all, if the virus concealed in the genital organs has been carried off in coition by the healthy person.

although the genital parts are not in the least affected. A friend of mine, a physician, was attacked with syphilitic symptoms, for which he took some mercurial medicines; all the symptoms disappeared, and he seemed to be in perfect health, for the space of six months, when one day, having lain with a woman, to all appearance sound, a few days after she found herself infected. Both were persuaded that the infection came from him; for, two days after, he was affected with a bubo, without any other local complaint in the genitals. If this observation were well ascertained, which I think it is not, or if it were confirmed by others, it would be very instructive, and would prove three things very interesting to know concerning the nature of the syphilitic virus: first, that it may remain six months in the body without giving the smallest sign of its existence: secondly, that it may be communicated to a person though the genitals of the infected individual be in appearance sound: thirdly, that this poison sometimes deposits itself from the blood into the inguinal glands, though we cannot easily say how it happens. But I am far from drawing such conclusions from an insulated fact, the only one of its kind which has as yet come to my knowledge, and which leaves moreover much uncertainty; for it seems to me, that these symptoms may have been produced, by an immediate absorption of the virus, lodged and dormant, if one may say so, in the vagina of the

woman, who to all appearance was in the best state of health.

3. By the *Rectum*. I have seen very melancholy examples of syphilitic ulcers in the rectum, communicated by unnatural coition, and *vice versâ*, men wishing to avoid syphilitic infection, and getting it from the same cause.

4. By giving suck. In all the cases of this kind, that have come to my knowledge, either the nipples of the nurse were infected by syphilitic ulcers in the mouth of the child, or reciprocally, the nipples of the nurse being attacked with ulcers, occasioned others of the same kind in the mouth, nose, and lips of the child, and thus communicated to it a general infection. It is still doubtful, as I have observed above, whether the syphilitic virus be ever communicated by the milk itself.

5. By exposing any part of the body whatever to the contact of the virus, by kisses, friction, or cutaneous contact, the danger is double, if the parts thus exposed are excoriated, wounded, or ulcerated, by any cause whatever. There are many examples, particularly in great towns, of nurses affected with syphilitic ulcers in the mouth, who have communicated them to the nose or mouth of children by kisses. I have already related a case where the disorder was communicated to two children who were accustomed to lie with a servant infected with syphilitic ulcers in her skin; and I have also cited some striking cases of infection by the simple

friction of the genitals of a sound man against the infected parts of a woman, (vol. i. chap. xii.) We also frequently see syphilitic ulcers which come in this manner on the scrotum, the anus, and thighs. I have unfortunately seen more than one example, where the virus was communicated to the hands of midwives, and surgeons; and *vice versâ*. I know an example of a midwife who had a syphilitic ulcer in the arm, and thus gave the disease to more than a hundred women, whom she delivered successively.

6. By wounding any part of the body with a lancet, knife, or other instrument, infected with the syphilitic virus. In this respect a resemblance may be observed between this poison and the small-pox. We have many examples of the latter having been communicated by bleeding with a lancet which, after having been employed in inoculation, or in opening pustules, had not been sufficiently cleaned. I saw two cases where some young men who were employed in dissecting dead bodies, having accidentally cut themselves in the hands, were attacked with ulcers and swellings in the arms and neighbouring lymphatic glands.

Van Swieten relates several cases in which syphilis was communicated by a similar neglect in cleaning an instrument, which had been used for bleeding or cupping. In Moravia, in the year 1577, several persons being together in a bath; where, according to the custom of those times, they also got cupped by a barber, were

all infected with the syphilitic disease. Crato, a physician, and Jordan, who give the description of this complaint, think that it was communicated by the instrument with which the scarifications were made.

7. By the transplanting of teeth. I witnessed a deplorable example of this : — A young girl in London, having had a carious tooth extracted, and having immediately replaced it by a tooth drawn at the same moment from a young woman of a healthy appearance, was soon attacked with an ulcer in her mouth. The disorder appeared to be of a syphilitic nature, but so obstinate, that it resisted the most powerful mercurial remedies, brought on a caries of the jaw-bone, followed by a most dreadful erosion of the mouth and face, and at length brought the unfortunate girl to the grave ; and all this time, not the slightest indisposition was perceived in the woman who had furnished the tooth.

8. By generation. I long doubted if the virus could now be propagated in this way, without a local complaint in the genitals ; but the fact which I have cited above (and I know others) proves without reply, that a father infected with the disease, can communicate it by the semen to his children, though his genital organs are perfectly sound, and still more so, if he has a blennorrhagia, or an ulcer in the genital organs.

It is thus, no doubt, that syphilis is sometimes

propagated from one generation to another, and becomes an hereditary disease.

In order clearly to apprehend the apparent contradictions which sometimes occur in practice, concerning the propagation of syphilis, and to fix the judgment of the young practitioner in doubtful and difficult cases, I shall add the following remarks : —

1. The syphilitic virus may be absorbed and carried into the mass of the blood, and produce general infection, without producing or leaving any visible effect on the surface of the body : it is consequently of the greatest importance always to keep in mind, in practice, that absorption sometimes takes place before the external parts appear infected with any symptom ; and consequently, that the mass of the blood may be infected before the effects of the virus appear on the genital parts, or even without those parts being ever affected.

2. An individual, man or woman, who has the syphilitic virus lodged in the genital parts, may infect another, and communicate a blennorrhagia, or a syphilitic ulcer, without having the least appearance of the disease himself, or herself, either externally, or in the system. To understand this paradox, we must recollect what I have stated above, that the syphilitic poison, when applied to any part of a sound person, must remain adhering to it for some time before it can produce a visible effect, that is, a blennorrhagia, or an ulcer : but, if it should be carried

off in time, either by chance, or cleanliness, it will produce no effect in that part; or, if it be carried off in coition by a sound person, before it had time to act on the part where it was lodged, the latter alone will be exposed to the infection, and become diseased, while the former will remain sound. Such examples frequently occur in practice.

3. It is often observed, particularly in the great capitals of Europe, that men accustomed to cohabit habitually with a woman, remain in good health, without catching any disease, while a stranger, who cohabits with the same woman, sometimes gets a violent infection.

Though all the parts of the human body appear susceptible of receiving the infection, it is, however, observed that the syphilitic virus affects some fluids, and some parts, preferably to others. It seldom, and perhaps never, affects any of the lymphatic glands, except those of the groin, arm-pits, and arm. It sometimes produces coagulations of the lymph, and tumours in the absorbent vessels of the genital parts; but it principally attacks the lymphatic and mucous glands of those parts, and of the throat in both sexes: it corrodes, destroys, or alters the gelatinous part of the blood in the bones, and sometimes in the bulbs of the hair; and in this case it often makes the hair fall off the head, or other parts of the body; in some very inveterate, or ill-treated cases, it attacks the nails of the feet and hands, destroys them, and makes them fall off:

it is in these cases that it probably produces sometimes in hot climates, the tuberculous leprosy, (*Leontiasis*, or *Elephantiasis*,) a terrible disease, in which the body becomes covered with ulcers; and the limbs being corroded, fall off in pieces, and render the dying patient a most hideous spectre.

When the symptoms are so clearly marked as those which I have described above, and particularly when several are combined together, it will not be difficult to pronounce on the nature of the disease; but the syphilitic virus does not always produce such marked symptoms, and then it is sometimes very difficult, and even impossible, to distinguish syphilitic complaints from diseases arising from other causes. These are the cases which require all the sagacity of the physician. — In doubtful cases, one should not neglect to examine the genital organs and neighbouring parts, and discover if they preserve any marks of an old ulcer, or if there be any tumour or hardness in the inguinal glands.

The syphilitic infection is communicated to the mass of the blood in two ways. The first and most common, is when the syphilitic virus, after having been communicated by the union of the two sexes, and having produced a blennorrhagia, an ulcer, or bubo, is carried during the progress of these complaints into the blood by the absorbent vessels; the other, which is more rare, is, when the virus applied to the surface of the body is immediately absorbed, without having produced

any visible effects on the genital parts *, or in short, when it is communicated to the mass of the blood without the conjunction of the sexes in the various ways mentioned above.

In the first case, the virus, being mixed with the mucus or lymph, passes into the blood by the system of the absorbing vessels ; in the latter, it is often communicated more directly to the blood, without any mixture ; for example, when there is a sore or an excoriation ; and so it is observed, that in this case, its effects are in general much more rapid, and more violent than in the former.

Before the syphilitic virus, existing in the system, has produced ulcers in the throat, eruptions in the skin, or other visible effects in the body,

* Thirty or forty years since, I saw a very instructive anatomical preparation in Mr. Watson's collection in London ; it was a lymphatic vessel injected, which rises in the *verumontanum* ; this vessel throws out, in its progress, some branches into the inguinal glands, but its principal trunk penetrates directly into the abdomen, and joins the thoracic duct, without passing through any lymphatic gland of the groins. The syphilitic virus absorbed by this vessel in the genital parts, might therefore be easily carried into the blood, and produce a general infection without any local symptom. — I myself, and several of my friends in London, have observed buboes without any ulcer or discharge from the penis, and these cases are not even, I believe, very rare. — I have seen many women who had syphilitic ulcers in the palate and throat, without having had either ulcers, or any discharge in the genital parts. — If a young woman be deflowered by a man already infected, the virus, instantly absorbed by the recent wound, and carried into the system, soon produces on this new subject, ulcers in the throat, and other syphilitic symptoms in the rest of the body.

the patient often falls into extraordinary depression and languor; sometimes he feels vague pains in every part of his body, and shooting pains in the cylindrical bones; there is often a pain in the pericranium as if the head were strongly compressed. When these pains are not very violent during the night, they merely cause agitation and restlessness; they seem very different from those piercing pains which attack the cylindrical bones in confirmed syphilis, and which cause a thickening and swelling of the periosteum, or a real exostosis frequently followed by a caries. The former are a sort of vague pains confined to the periosteum, and the muscular aponeurotic, or ligamentous surfaces, and are sometimes so slight, as hardly to occasion any complaint; but even when they are more violent, they are evidently more supportable than the latter. Besides these symptoms, the patient sometimes experiences weakness and lassitude, not only during the day, and when standing, but more particularly in the morning when he rises; neither sleep nor lying in bed procuring any repose or refreshment. He is attacked with a sort of slow fever, with a weak and quick pulse, his eyes are sunk, and the circle of the orbit is livid; he has pains in his shoulders and sides; his countenance exhibits a harassed and worn constitution; and in a word, he grows thin and wears away perceptibly.

These symptoms often precede the appearance of ulcers in the throat, and eruptions on the

skin; the more general the eruption, the more sensible is the remission of the pains, and the diminution of the other symptoms of which we have just spoken.

The skin is then of a brown colour; flat spots of a red-purple colour, yellowish, or livid, appear on the breast and shoulders, or on the forehead; sometimes these spots are distinct, small and circular, sometimes they are broad and extended, and frequently seem covered with a dry crust like a scab or tetter, particularly at the roots of the hair on the forehead, the cheeks, and the neck; sometimes they change into ulcers which become deep and hollow. In the palms of the hands, and in the soles of the feet, these eruptions degenerate into fissures, which become hard and callous, and give out sometimes a clear ichorous humour, and the epidermis separates from the skin. In different parts of the body are formed hard, callous, circular tubercles, or pustules slightly raised, which are generally dry, but at other times moist, scaly, and yellowish, and sometimes ulcerated at the top: they are generally seen in the angles of the mouth and the nose. This sort of eruption is also frequently seen about the forehead, or the temples, the hands, the wrists, the thighs, and the region of the loins; in short, they are often dispersed over the whole surface of the body.

Another characteristic symptom of syphilis is the inflammation and ulceration of the tonsils, the uvula, and palate, or other internal parts of

the mouth, throat, and nose. These ulcers, if neglected, are soon followed by caries, which destroys the bones of the palate; that part becomes covered with tubercles and pustules which degenerate into phagedenic ulcers, and the caries of the bones of the palate soon reaches those of the nose. The mucous membrane, when attacked by this disease, grows thick, and becomes callous or fungous; one or more ulcers are formed in the nose, accompanied with caries and a very foetid odour; this is what is called ozoëna, a complaint pretty frequent, and particularly among those who have neglected themselves, or have been repeatedly ill-treated. The *ossa spongiosa*, the triangular bones of the nose, and the vomer which supports them, becoming carious, their fall occasions that depression and disfigurement of the nose, which was very often seen 20 or 30 years ago, but which fortunately has now become less frequent in Europe, at least in France and England. The voice changes at the same time, and becomes hoarse; the patient speaks through the nose, or loses the faculty of articulating his words, and cannot make himself understood, unless he puts in a plate to fill up the vacuum occasioned by the loss of the uvula, and the fall of the carious bones: the gums are corroded; the teeth drop, and the breath becomes foetid and burning. As the affections of the skin and the throat sometimes exist at the same time, I have thought proper to relate them together, as well as those of the palate, which

sometimes take place then also, or soon come on, if the disorder is not stopped in time.

These ulcers of the uvula, the palate, the tonsils, or the pharynx, have a thick whitish crust, they spread and deepen more and more, while those of the mouth, particularly in the beginning, are more like aphthæ. An experienced eye distinguishes them generally in a moment, but it is not so easy to describe them. Mercury always occasions some favourable change in them ; and I can therefore affirm, without hesitation, that whenever the tonsils, the uvula, or the pharynx, are ulcerated in consequence of a syphilitic infection, the ulcer will never be cured spontaneously, but will continue to spread and end by caries and death, if not properly treated.

The effects of the syphilitic virus in the system generally make their first appearance on the soft parts, such as the throat and skin, then on the aponeurotic membranes, the tendons and the periosteum, at length on the bones themselves. But the disease does not always follow this regular march ; for sometimes the latter parts have been seen affected without any apparent symptom on the former. Sometimes there is no other manifest symptom than a dry cough, which, if neglected ends in phthisis.

Some hospital practitioners have thought they perceived that this disease had a different character, according to the different nature of the air and seasons, because they observed that in hospitals solely destined for the treatment of syphilitic diseases, sometimes one symptom predo-

minated, and sometimes another. In like manner, in the hospital at Vaugerard, at Paris, it has been remarked, that in children affected with syphilis, there was almost always a predominating symptom, and that it varied according to the seasons. At one time they had ulcers in the mouth, at another opthalmias. There have been many disputes on the period when the symptoms of syphilis manifest themselves, after the virus has been applied to the surface of the body, or has been absorbed into the mass of blood; but I have remarked that in both cases this period is so different in different persons, that it is impossible to assign an invariable epoch to this appearance. In many persons, the symptoms appear some days after absorption; in others, not till after several weeks; and even in some cases, several months pass before the effects of the virus are developed in the constitution, particularly if the action of the virus has been suspended, without being radically removed, by a bad administration of mercury. In some cases, though rare indeed, the poison seems to have remained in the body for several years, without having given any sign of its presence, when all at once, after an excess in wine, some violent exercise, the use of mineral baths or waters, or the consequences of a fever, it manifests itself by the most unequivocal symptoms.

There are many examples of ulcers in the throat, and pains in the bones, which suddenly appear without any previous indisposition;

in other cases, we first perceive great restlessness, watchfulness, and general uneasiness ; vague pains in different parts of the body, preceded or accompanied by a symptomatic fever, a general emaciation, a considerable change in the countenance, and in short a total exhaustion of the constitution.

I never have seen a person affected with syphilis, radically cured in Europe, by the mere efforts of nature, and hitherto we have had no authentic observations to prove, that such a cure has ever happened even in the tropical climates ; though from the relation of *Leo Africanus*, of which we have spoken, vol. i. ch. 2., and that of Captain Cook, as well as from information which the history of medicine has preserved, I do not pretend to deny that such cures may sometimes happen.

It still remains to be verified, whether the syphilitic virus remains, as some writers affirm, a longer time inactive in robust, phlegmatic, or less irritable persons, than in those who are delicate, who are more irritable, or are weakened by diseases.

I have not had an opportunity of ascertaining whether hereditary syphilis remains sometimes *latent*, as has been said, till the age of puberty, and is then developed ; but I know that cases are frequent, principally in the southern parts of Europe, in which the syphilitic disease, having been palliated at different times by mercury, or other remedies, becomes at last, though greatly

mitigated in its symptoms, very obstinate, and is propagated successively by coition, to several generations.

Sometimes the complaints of the bones appear some weeks or months after the patient has taken mercury, for ulcers of the throat, or for cutaneous disorders; if he has not continued its use till perfectly cured. A great number of such instances occur every day in practice. The ulcers of the throat, the cutaneous eruptions, the pains, &c., disappear in these cases by the employment of mercury; but then, if it be suspended, the symptoms return, or are replaced, some weeks or months after, by pains and swelling in the periosteum or bones.

It is proper to remark here, that when the bones are affected with caries or exostosis, the syphilis may be radically cured before the complete cure of the caries, which cannot take place till the carious part has exfoliated, and is separated from the sound part of the bone; which in many cases depends on a long operation of nature. As to exostosis or hyperostosis produced by the syphilitic virus, they often last for life, though the virus be completely and radically destroyed.

We must also observe, that the caries may proceed from the denudation of the bones, by the destruction of the soft parts which cover them, and from their exposure to the air without being affected themselves with the syphilitic virus, as often happens to the bones of the nose,

palate, &c. This may be called a symptomatic caries, which must be carefully distinguished from that which proceeds from the action of the virus on the bones themselves.

I shall conclude by observing, that one should never forget in practice, that ulcers in the throat, eruptions in the skin, various affections in the bones, tumours and chronic pains in the joints of the extremities, imitating the gout or inveterate rheumatism, often proceed, whatever some modern writers pretend, from a blennorrhagia of the urethra imprudently stopped. Of this I have seen many striking examples where the patients treated without success for a great number of years, were only cured at last by a complete mercurial treatment.

Before finishing this chapter, I think it will be useful to make a general recapitulation of the effects or symptoms which the syphilitic virus commonly produces in the present day in different parts of the body, when it is absorbed into the general mass of the blood.

I. *The eyes.* 1°. The most violent of all opthalmias, accompanied with a discharge of puriform matter, and commonly terminated by the blindness, or by a complete destruction of the organ. This disease proceeds from a suppressed syphilitic blennorrhagia in either sex : — 2°. A slow or chronic inflammation in the eye or eyelids : — 3°. Sometimes also a fistula-lachrymalis, in consequence of an ill-treated blennorrhagia : — 4°. Instead of that a painful and most violent inflamma-

tion in the eye itself, or a fistula-lachrymalis, with a caries of the bones, produced by the syphilitic virus, in consequence of a general infection.

II. *The ears.* Deafness, accompanied with violent pains, with or without a puriform discharge, proceeding likewise from a suppressed blennorrhagia, or produced by the syphilitic virus spread through the body, which attacks the ear itself, or one of the two orifices of the Eustachian tubes in the back of the mouth.

III. *The nose.* Ulcers in the nostrils, or an ulcer in the mucous membrane of the nose, with or without a caries of the bones of the frontal sinuses, the spongy bones of the nose, and particularly of the vomer, the loss of which causes that deformity of the nose of which we still see some examples, though less frequent than formerly. These symptoms are often accompanied with an ichorous and foetid discharge, called ozæna, (*Ozæna syphilitica.*)

IV. *Mouth and Throat.* Ulcers, caries of the palate bones, of the sinus maxillaris, or sphenoidal bone; erosion of the palate, of the tonsils, and Eustachian tubes, ulcers in the gums, or tongue; a sore throat, a fatiguing cough, paraphonia, or change of voice; the patient speaks thick, as if his tongue was too large, or speaks through the nose, or is unable to articulate distinctly.

V. *The Lungs.* A dry cough, or accompanied with puriform or really purulent expecto-

ration, producing a general emaciation of the body, with a hectic fever. (*Phthisis pulmonalis, vel atrophia syphilitica.*)

VI. *The Genitals.* Blennorrhagias, ulcers, hard tubercles in the glans of the urethra, or the cutaneous glans of the penis, buboes, or constant vague pains, excoriations, ulcers, fistulas, blennorrhagias, eruptions, warts, condylomata, chaps, &c. As to blennorrhagias, and tumours in the testicles, I still doubt, from the want of authentic facts, as I have said in the first volume, whether these complaints ever arise from the syphilitic virus deposited in those parts from the general mass.

VII. *The Skin.* Brown, red, or copper-coloured spots, dry or moist crusts, pimples or ulcers in different parts of the body, and particularly on the hairy scalp, or the beard. When the disease is very inveterate, it sometimes produces, particularly in the hot climates, the tuberculous leprosy, (*Elephantiasis,*) accompanied or followed by a corruption of the nails, and corrosive ulcers of the most malignant kind, particularly in the extremities.

VIII. *The Bones.* The most painful and most distressing tumours, known by the name of periostoses, or exostoses, according as they have their seat in the periosteum, or the bone itself, which torment the patient, particularly at night, when he is warm in bed; an ulceration of the external or corruption of the internal substance of the bones, diseases known under

the names of *caries*, and *spina ventosa*, (or *throcaci*, or more exactly *osteophthoria* of my Nosology.) The bones, most subject to be affected in syphilis, are those which are not covered, or the least covered with muscles, as the tibia, radius, cubitus, the coracöid apophysis, the sternum, coronal, and other bones of the head.

IX. Sometimes the syphilitic poison produces effects of which the nature is so hidden, that they would seem rather to proceed from some other cause. Such are pains and swellings like those of chronic rheumatism in different parts of the body; pains in the joints, which might be taken for gout; asthma, pale tumours, terrible attacks of the nerves, nervous or hectic fevers, pulmonic consumptions, or simple emaciation, without any apparent organic defect in any of the viscera. Physicians have named these affections disguised syphilitic complaints (*Morbi venerei larvati*, or *Pseudo-syphilis*). It must be observed, however, that these symptoms may often be occasioned by the improper use of mercury, and by the bad effects which result from it.

X. Sometimes syphilis is really combined with other diseases, such as scurvy, tetters, the itch, scrofula, gout, intermittent fever, or other epidemic diseases: these are called complicated syphilitic diseases (*Morbi syphilitici complicati*). They deserve the greatest attention on the part of the practitioner, because the success of their treatment often depends in great measure, on

the knowledge and exact distinction of these complaints.

Some writers on syphilis, have affirmed that the virus absorbed into the blood, first produces symptoms on the external parts of the body, as the skin, nose, and tonsils; that in the second degree of the disease, the symptoms are more internal, and attack the aponeuroses, periosteum, tendons, and bones. But this assertion is subject to many exceptions, for we see cases where the syphilitic virus being absorbed, produce immediately symptoms in the latter parts, before it has affected the former, or even without affecting them at all.

In order to render the history of syphilis as clear and concise as possible, I shall make a short recapitulation of the different symptoms just enumerated.

This then, in a few words, is the character of syphilis as it is seen at present in Europe.

The most frequent effects of the syphilitic virus in the system are ulcers in the throat, accompanied with dryness and difficulty of swallowing, and sometimes an evident change in the voice: on the skin, spots of different sizes, which come and disappear, or remain; or a sort of spots of a deep copper-colour, forming, in some cases tubercles, which contain a purulent matter, without being so red or so elevated as real pustules; crusts, with an oozing of puriform matter, or else dry crusts, or scaling of the

epidermis. These crusts are at first small, but enlarge afterwards; those which follow thicken by degrees; a purulent matter is formed under these crusts, and at length they change into real ulcers. When these crusts come on the hairy scalp, the hair falls, and no other comes on the same spot till the disease is cured. If the syphilitic virus is deposited on the nails, it produces at first a red spot; afterwards, the nail gets rough and uneven, shrivels, dies, and falls. These crusts and scales are often formed only in the palms of the hands, or soles of the feet; but in several cases, they appear on all parts of the body, except those where there is a constant friction between two surfaces of the skin; as between the scrotum and the thighs; the anus, the corners of the mouth, and the arm-pits. In these parts, the skin swells, is ulcerated, and throws out a white matter. If the virus is deposited on the periosteum, it produces a swelling in it accompanied with the most acute pain, particularly in the night. The seat of this swelling seems as if it were in the bone itself, because it is very hard, and adheres strongly to that part. It is for this reason that it is often confounded with a real exostosis; but when an abscess and ichorous ulcer is formed, it is generally found that the bone beneath is sound. It often happens, however, that the virus attacks the bone itself, and changes its texture; then the bone swells, and forms what is called a real exostosis, which generally terminates in caries. In this case, there

is an evident chemical change in the constituent parts of the bone.

Before these ulcers, spots and tumours appear; the virus often occasions head-aches, difficulty of breathing, fever, and, as I have sometimes seen, exactly the same symptoms as those which precede other cutaneous disorders. In other cases, the syphilitic virus remains in the body without producing any local affections; but then it often causes a slow fever and loss of appetite, or the patient, though he has a good appetite, grows thin, with or without a hectic fever, and loses his sleep and rest; his countenance shows evident marks of a harassed and worn constitution; his eyes fall in, and grow hollow; and the colour and the muscles of his face inform the attentive observer that there is something within which is undermining his constitution.

These symptoms of syphilis, though sometimes very serious, have become in general, particularly within the last fifty or sixty years, much less violent in Europe; the ravages of the virus are much less rapid, particularly in the southern climates, such as Spain, Portugal, and Italy.

The physicians and patients of those countries, considering mercury as a very violent medicine, generally employ nothing but decoctions of guaiacum, sarsaparilla, &c. with warm or vapour baths, to cure or at least palliate syphilitic complaints: but in the northern regions, which are colder and wetter, we are commonly obliged to have

recourse to mercury, in order to obtain a radical cure of the disease in all its different stages.

The remedies drawn from the vegetable kingdom having been ascertained to be less safe and less certain in their effects, the most enlightened practitioners justly prefer the different mercurial preparations, not only on account of the specific virtue of mercury in this disease, when it is administered with prudence, but moreover because it is a cheap remedy, easily found, and within the reach of every body, while its effects are quick and certain in the majority of cases, particularly when recent. Thus, though intermittent fevers may be cured by other remedies, nothing is now used but bark.

CHAPTER II.

OF THE TREATMENT OF SYPHILIS IN GENERAL.

MERCURY had been known, and been employed for different cutaneous eruptions, long before the syphilitic disease appeared in Europe. The Arabian physicians, whose practice has been transmitted to us by *Rhazes*, used it in the form of a plaster and ointment. *Vigo* and *Fallopia* employed it at first in the same manner as the Arabians. They applied plasters and mercurial ointment on the affected parts. *Berenger de Carpi* was the first, as far as we know, who employed mercurial frictions on the body to cure the syphilitic disease; but as he made a great fortune by it, he kept it a secret. *N. Massa* recommended frictions in preference to every other remedy. *Maitre le Coq* administered mercurial frictions to Francis I. But *Vigo* seems to have been the first who tried the internal use of mercury for the cure of this disease. For this purpose, he made use of the red oxide of mercury; but it was *P. Andr. Mathioli*, a celebrated botanist, who first publicly recommended

the internal use of mercury; and it was the famous *Paracelsus*, who, in his treatise, entitled *Magna Chirurgia*, introduced into practice the methodical and systematic use of mercury internally, because, says he, the decoction of guaiacum, sarsaparilla, &c. often fails to produce a radical cure of the disorder. He recommends the red oxide, the submuriate, and the oxymuriate of mercury. The same author invented some time after a combination of corrosive sublimate with gold, for the cure of syphilis. This composition was much employed under the name of *aurum vitæ*, by the practitioners of that time, particularly *Winter*, *Sassonia*, and *Horst*.

But physicians in general would not follow this example, because they observed that all these mercurial medicines, administered internally, produced violent and sometimes terrible effects on the patient, without any lasting effect on the disease. Moreover, mercury, then and long after, was considered a poison, like antimony in our remembrance, and arsenic still, because they knew not how to manage it properly, nor continue its use long enough.

About the same period, Francis I. having heard of the famous pills of *Barbarossa*, the receipt was communicated to him by the author himself, and thus introduced into practice. They were composed of twenty-five drachms of mercury, ten of rhubarb, three of scammony, one of musk, the same of amber, and two of white honey; the whole well triturated, and re-

duced to a mass with lemon syrup ; one of these pills, the size of a pea, was given every night, an hour before supper ; but the effects of mercury, as I have already mentioned, were so dreaded, that the physicians were afraid of employing it internally in any shape whatever.

The sudorific woods had also been tried with advantage for the cure of syphilis, and we find them recommended by several writers of that period.

Guaiacum (*Guajacum officinale*) was brought from St. Domingo into Europe in the year 1517; and soon after the Spaniards also brought from America the sarsaparilla (*Smilax sarsaparilla*) and the sassafras (*Laurus sassafras*) plants, which the natives of the country used for the same disorder.

Musa di Brasavola administered the gum-resin of guaiacum to the POPE, whose physician he was ; and the physicians of Charles V. ordered him to give up the use of guaiacum, and try other medicines for a radical cure.

Various compositions of opium were also tried at the same period against this terrible disease.

From that time down to our days many other vegetables have been discovered and recommended, but above all a prodigious number of mercurial preparations and compositions, with the intention, no doubt, at least in general, of preserving the healing qualities of the mercury, and correcting those reputed hurtful ; and a

more particular attention has been given to them since the insufficiency of vegetables has been ascertained in procuring a radical cure of syphilis, particularly in the northern climates of Europe. Mercury has maintained its pre-eminence, and is now the sovereign remedy for the cure of this disease in all its degrees and stages ; though it must be allowed, that in the hands of quacks it often becomes a dangerous, and even sometimes a fatal remedy ; but it is the inexperience or ignorance of the practitioner that must be blamed, and not mercury itself, which is always a sure and mild medicine when administered with prudence.

It is at present the only known remedy on which we can depend with safety for a radical cure of the syphilitic disease ; but its administration requires, in many cases, great sagacity and practical knowledge, in order to determine the quantity necessary to effect a cure ; to choose the best preparation according to circumstances, and the most suitable means of introducing it into the body ; to fix the time when to begin or cease the use of it, either altogether, or to be resumed hereafter ; to regulate the regimen of the patient during the time he takes it, and prevent or remove entirely the disagreeable effects which may sometimes result from it.

The first duty of a physician, who is consulted on a syphilitic complaint, is to enquire if the patient has had any such complaints before, at what period, and what they were ; if he was in

good health when the syphilitic symptoms appeared ; if he has been, or if he be actually attacked with any other disorder, as consumption, gout, itch, scrofula, scurvy, &c. He must examine moreover if he be strong and vigorous, or of a delicate and irritable constitution, or rather if he be not of a phlegmatic habit, or perhaps in a state of real weakness or debility ; in short, he must ascertain if the complaint be recent or inveterate ; and in the latter case, what medicines have been employed, and what have been their effects. He must investigate besides, with the most serious attention, if the symptoms of which the patient complains are really of a syphilitic nature, that is to say, produced by that specific virus ; or if they are not caused perhaps by some other acrimony of a different nature. If it be a woman, he must enquire if she be pregnant ; when it is a child, whether the nurse may not have given it the complaint. All these points must be thoroughly investigated and marked down with the greatest care, because our plan and success, as well as the happiness of the patient, and frequently that of a whole family, absolutely depend on the exact knowledge of all these different points.

The season of the year equally deserves our attention, as much with regard to the symptoms of the disorder, as to the method of cure. The season and the climate contribute much more than is supposed in general, to render the virus as well as the mercury more or less active ; and

what is often attributed to too small a dose of mercury, or to a bad preparation of it, is but too often owing to cold and wet, or to a degree of irritability in the patient; which retards and even sometimes renders null the effects of mercury: on the other hand, the same cold, or the peculiar irritability of the patient, often occasions, during the use of mercury, colics, diarrhœas, rheumatisms, salivation, tetanus, paralysis, &c. while the effects of mercury are, in general, in our northern climates more quick, more powerful, and less dangerous in the mild and warm season of the year.

In the first case, therefore, the patient must be confined to his chamber, or be kept at least very warm, to prevent any bad effects of the mercury, which might, and often do arise from suppressed perspiration; or to prevent imprudence in regimen, in which an impatient person, or one incapable of governing his appetite, might indulge. This precaution, as well as diet, are particularly necessary in those countries where men are addicted to excess of drink, and in those where the effects of a cold and wet atmosphere are most to be feared.

It is proper, in the beginning of the treatment, to admonish persons accustomed to drink much, that if during the use of mercury, they do not observe a more sober regimen, they can only expect a long and tedious cure, and are even exposed to the bad effects of the mercury. Excess in wine, a cold and wet atmosphere, or a

draught of air, must be carefully avoided during a mercurial treatment.

It is impossible to determine, by any general rule, how long the use of mercury should be continued, and when it should cease, principally in cases where the patient is greatly weakened, or when the disease is very inveterate, or accompanied by certain ulcers, exostoses, or caries. These ulcers and caries sometimes grow worse, and even prove fatal during a long-continued use of mercury. It is in such cases that an alternating mercurial treatment is often the only resource, notwithstanding all that has been said and written of late against this method; for we are then frequently obliged to abandon the use of mercury before the virus is totally destroyed, in order to have recourse to a fortifying regimen, and when the patient has recovered his strength to resume the use of mercury: we are even sometimes obliged to alternate several times, and also to change the mercurial preparations, till at length the virus is radically destroyed.

The young practitioner should be particularly on his guard, not to give way to the impatience of his patients, particularly women, and give up too soon the use of mercury, by yielding to their blind wishes. A great many patients fall victims to this condescension, with which they afterwards reproach the physician, and suffer sometimes during their whole life, from the consequences of complaints from which they would have been

preserved, if they had consented to continue the treatment longer, and had not abandoned it too soon, or even immediately after the disappearance of the symptoms.

It must therefore always be recollected, that it is not sufficient only to give mercury till the symptoms or visible effects of the disorder have disappeared, but that the use of it must be continued twelve or fifteen, and sometimes twenty, or even thirty days after, to destroy, if I may be allowed the expression, the very last atom of the virus.

Those who pretend that there is only one mercurial preparation, only one method of administering mercury, and that that should be preferred to all others, are, in my opinion, inattentive, grossly ignorant, or empirics or quacks. The degree and the seat of the disorder, the rapidity or slowness of its progress, the particular structure of the affected part, the constitution and actual state of the patient's health, his idiosyncrasy, the nature of the medicines he has used before we are consulted—in short, the regimen he has followed, are so many considerations which may cause a difference in the choice of the mercurial preparations, as well as in the method of administering them. They require on the part of the practitioner, who wishes to satisfy his conscience, and justify the confidence of his patients, a more serious attention than is commonly believed.

All these circumstances often require a parti-

cular care in the choice of mercurial preparations, and sometimes oblige us to unite other medicines with mercury, or prepare for the use of them by diluents, sudorific decoctions, baths, strengthening medicines, or diet ; or, in short, to follow an alternating plan of treatment with mercury and those remedies.

It is useful and even necessary, in certain cases, to prepare the patient by appropriate evacuations, by baths, a regimen, &c. before he begins the mercurial treatment, because the mercury often produces the effect of a stimulant, particularly in strong and plethoric constitutions. If mercury be administered to such patients without preparation, it frequently produces a violent inflammatory fever ; while in other cases, it affects more particularly the chest, the intestines, and salivary glands. In general, it must be remarked, that different constitutions are differently affected by the syphilitic virus as well as by the mercury ; and that the success of the treatment, particularly if it be a confirmed or inveterate syphilis, depends, in great measure, on the attention which is given to this subject.

In general, the difficulties of the cure of syphilis are more in proportion to the length of time that the virus has remained in the body, and its complication with other diseases, and with the partial or bad treatment the patient has undergone, than with the gravity of the symptoms. In fact, we find in practice, that it is much more difficult to cure an old and inveterate case, par-

ticularly when it has been harassed by different mercurial remedies, either unsuitable, or badly administered; and that its nature has been changed in some sort by an injudicious palliative treatment. We are then obliged to have recourse to other mercurial preparations, or even to other remedies, according to the character of the disorder with which the disease is complicated; while it is easily cured in general, if recent, by the mildest preparations, though accompanied with serious and violent symptoms. In warm climates, on the contrary, where this disease now appears in general much less violent, and slower in its progress, physicians often merely make use of simple sudorific medicines and vapour baths.

We must, however, here observe, that although this last method appears in general to succeed with the natives or inhabitants of warm climates, it never, or very seldom, operates a radical cure in strangers from the northern countries; and who, having the misfortune to contract the syphilitic disease there, are much more seriously affected than the natives, and require in general a complete mercurial treatment.

If the patient is of a plethoric habit, bleeding is sometimes useful before beginning the use of mercury. When the *primæ viæ* are not cleared, it is proper to give an emetic, or a purgative, once or twice, according to circumstances; but if the patient be in good health before the use of the mercury, and continues so during the first

three or four days of the treatment, it is then useless to prepare him or give any thing but the mercury.

Before beginning a mercurial treatment, it is of consequence to inform the patient of the effects of mercury on gold, or gilded things, as rings, seals, watches, &c. not only to hinder such things from being spoilt, but, what is of much greater consequence, that the patient may not be liable to be discovered; which women, in particular, have the greatest desire to avoid.

If frictions, or other mercurial preparations, be used externally, the patient should also be told that the stains on his linen, produced by the mercury, will spoil all other linen that is washed with it, which may thus betray his secret.

When I have decided on beginning the administration of the mercury, I place the patient in a warm bath, either pure, or with a decoction of bran. He remains half an hour or an hour in this bath, the temperature of which is determined by an agreeable sensation of warmth which the patient should feel on entering it. But as I have found that patients are apt to deceive themselves, I advise them, in order to avoid mistakes, to examine and determine the degree of heat of the bath, before they enter it, by means of a thermometer. I call a bath warm when the thermometer rises in it from 96° to 98° of Fahrenheit. When the patient has remained half an hour, I advise him to rub himself, or have himself rubbed, with a brush, or a piece of

flannel. On coming out of the bath, he may take a glass of good wine, and then lie down on a bed. The skin thus cleansed and supple is in a state to perform its functions well, which ought to be one of the first objects of our attention, before and during the mercurial treatment.

For the same reason, it is advisable in general, to make the patient take a warm bath every two or three days during the treatment; or, what is often preferable, a vapour bath, if it can conveniently be had.

I shall treat of mercury, and its different preparations, in a particular chapter. It is necessary to observe attentively at first, if the mercurial treatment agrees with the patient; if it does not, it must be changed without delay. It should be considered as a general and certain rule, that there is no mercurial preparation whatever that agrees in all cases. Whatever ignorant and routine practitioners may pretend, the nature of the patient, the state and degree of the disease, oblige the physician to vary the method and the preparations; they must be adapted to circumstances. In one case, the grey oxide of mercury is preferable; in another, a saline preparation is better; and of these themselves, sometimes one, and sometimes the other deserves the preference. Patients who cannot support frictions sometimes bear very easily the internal use of mercury; and *vice versa*, those who cannot bear mercury internally, do very well with frictions. There are patients who are

incommoded with one mercurial preparation, while they go on very well with another. Some take these preparations better in pills; others in powder, or dissolved in some liquid. The practitioner will be regulated by the temperament, the circumstances, or even the desire of the patient: to one who has a repugnance to mercurial frictions, he will give an oxide or a mercurial salt. The oxide of mercury with gum, reduced into pills, often agrees with irritable and delicate persons; while triturated mercury reduced into pills with extract of liquorice, or with honey or sugar-candy, will be preferable for others. In all these preparations, the mercury is reduced into a grey or blackish oxide. In other cases, the saline preparations of mercury more or less acrid may, according to circumstances, be more suitable and advantageous. In general, I have preferred for several years past, for internal use, the oxides and milder preparations of mercury to those which are acrid and saline, such as particularly the oxymuriate of mercury or corrosive sublimate. The young practitioner should consider it as a general rule, that there is no mercurial preparation which is sufficient, in all cases, to produce a certain and radical cure. It is impossible to enter into the detail of every circumstance; but I shall give some general rules which ought to be observed, independently of those which are pointed out in the chapter on *mercurial preparations*.

A patient who is to be cured of the syphilitic

disease, must have sufficient strength to bear the use of mercury. If he be attacked with a nervous, hectic, or inflammatory fever, or with scurvy, gout, cancer, &c. a mercurial treatment must not be thought of. I have constantly observed, that in all these cases, the mercury was not only prejudicial to the patient, but that if persisted in, it proved fatal. We must begin, therefore, if possible, by curing these different diseases, or if the syphilitic symptoms are so urgent as to require the immediate use of mercury, those remedies must be joined with it, which are suitable to those different complaints, or else recourse must be had to an alternating treatment.

If the patient is in a state of great weakness and irritability, we should examine if it be his natural constitution, or the consequence of a debauched life, or perhaps even the effect of the mercury he has previously taken ; for this state sometimes proceeds from the imprudent use of this remedy : it is also often owing to the syphilitic disease, or virus, concealed in the body, and in these latter cases the immediate use of mercury is necessary, while in others, good nourishment and strengthening medicines are necessary before the mercury is employed.

When it is requisite to strengthen the patient, the healthy air of a well-situated country place is one of the first things that should be prescribed ; afterwards, asses' or cows' milk as it comes from the animal ; or, what I have found incom-

parably better, in certain cases, for persons of fortune, a country nurse, strong and healthy, whom the patient sucks himself, or if that be found disagreeable or dangerous, she may be milked with a machine for that purpose, of gum elastic, while the patient swallows the milk directly. This milk is for weak persons the greatest strengthener I am acquainted with. The patient may be fed moreover with sago, saloop, semolina, a little wine, an egg beat up with a little sugar, a decoction of Iceland moss in water or milk, light farinaceous vegetables, fish, oysters, the tender meat of young animals of all kinds, particularly roasted, and not too fat; if he likes strong beer, and it agrees with him, he may drink it at dinner. Instead of beer, a few small glasses of Spanish or Hungarian wine will be salutary. Moderate exercise of every kind, and frictions from time to time with a brush over his whole body, will contribute to the good effects of this regimen. As to medicines, commonly none are wanted; but if thought necessary, or the patient desires them, nothing is better than small doses of bark finely powdered, either alone, or mixed with good old wine. When the patient is very feeble, the tincture of cascarilla, or *Tinctura ferri ætherea*, (Ph. Syph.) is what I have found most efficacious. The cold bath, by immersion for a moment, is sometimes very useful; but in certain cases, is by no means advisable. All these means, joined with agreeable company, provided all lascivious ideas and noc-

turnal pollutions be avoided, will greatly contribute to prepare the patient, and give him the necessary strength for the use of mercury.

If weakness is caused by the virus itself, the mercury, as I have said above, is the best strengthener. I have seen persons in this state gain so much strength in eight or ten days by the internal use of this medicine, that they were most agreeably surprised.

During the use of mercury, a mixed diet of vegetables and animals, as the most natural to the human species, is the most suitable, provided always, that temperance be observed, and that fat, hard aliments, or difficult of digestion, be avoided. Acids sometimes occasion colics, or looseness, during the use of mercury. If that happens they must be avoided. At dinner a moderate use of wine cannot be hurtful. As to strong beer, or any other kind, all stomachs will not bear it during the treatment. When the stomach can bear it, I see no reason for not allowing a moderate use of it, and I never saw any ill result from it in such circumstances. But one thing on which I principally insist is, to make the patient go to bed early. It is advantageous to sleep much during a mercurial treatment. I have always found it more useful to allow the patient moderate exercise on foot, on horseback, or in a carriage, if the air be warm and dry, than to confine him in his chamber. But if the season is very cold and wet, it is safer to make him stay at home. The night air is

particularly dangerous, being commonly cold and moist, and often also mephitic; for which reason every patient under mercurial treatment should avoid it with the greatest care. I have known many examples of persons who, from not having paid attention to this circumstance during the use of mercury, ruined their health and constitution for many years, and even for their whole life. The most ordinary symptoms of suppressed perspiration during the treatment are, violent pains in the joints, a spitting of blood, pulmonary consumption, dreadful headaches, immobility or palsy of the limbs, inflammation of the brain, and madness. When business or circumstances absolutely force the patient to go out, in very cold, wet, or unwholesome weather, he should never expose himself to it without being warmly clothed, nor without having a flannel or cotton shirt next his skin, and good warm worsted stockings. Fat persons, or those who have a disposition to it, and in whom the disease seems to have taken deep root, may join with advantage the decoction of guaiacum with the mercury.

In all cases of syphilis, particularly if inveterate or very obstinate, we should endeavour to make the mercury exhale by perspiration, in proportion as it is taken; but large sweatings should not be excited for that purpose, for fear of weakening the patient, or bringing on some other complaint, particularly if he be of a cachectic or delicate constitution. If the body

be naturally disposed to salivation, or immoderate sweating, we must proceed with the greatest circumspection. In this case the patient must remain at home, particularly during the bad weather, in a room moderately heated, without too much covering, particularly on the head or neck. The temperature of the room during winter, should be between the 75° and 78° degrees of Fahrenheit. But if he should go out in this season, he should always wear a flannel waistcoat and drawers under his shirt. But when the weather is fine and dry, I think such patients should go out; for I have found in many cases, that the enjoyment of fresh and pure air contributes to prevent salivation, without hindering the progress of the cure. These precautions are useless in warm climates, or in the summer. If the patient is weak, he may take with advantage from a scruple to a drachm of bark in milk, morning and evening, during ten or fifteen days; but in no case must the mercury be administered internally at the same time with bark, or any other astringent plant, because the oxyd of mercury would infallibly be decomposed by those medicines, and at the end, no effect would be produced by either.

I have commonly succeeded by these means in preventing the bad effects of the mercury, of which I have spoken above, such as immoderate sweats, and salivation, or diarrhoea, a circumstance to which one always should pay great attention, during a mercurial treatment. In

the two first cases, the mercury, though absorbed into the system, appears to be dissipated by means of the salivary glands, and the skin, as soon as it has entered the blood; without producing the salutary effects which are absolutely necessary to destroy the virus, and without producing a radical cure; and when a diarrhœa is produced by the mercury it is no longer absorbed, and has little or no effect on the disorder. I have seen several patients treated in this bad way, who, after having taken mercury for six weeks or two months with a constant diarrhœa, were at the end of that period nearly in the same state as at first.

The use of the mercury must thus be continued, if no particular accident occurs, as long as is necessary. The patient must take a warm bath every two or three days, if there be no particular reason for the contrary. But whenever the patient feels a nauseous taste in his mouth like copper, if his breath gets bad, his gums swell, his teeth on edge, and there is a greater secretion of saliva, or spitting, than usual, we must proceed with precaution; and even if the salivation is copious, the mercury must be suspended for some days, the patient must be put in a warm bath, and be rubbed with a brush, and take particular care to avoid cold. If the salivation continues, he must gargle frequently with an infusion of sage sweetened with honey, with a little alum, borax, or a decoction of the green part of walnuts (*sarco*

carpus), particularly if the mercury has caused excoriations or ulcers in the mouth, and a mild purge may be given with purified sulphur. But in such circumstances, one should in general be very circumspect in the employment of acrid purgatives, for fear of their causing a diarrhœa; which would be very difficult to stop, and might endanger the life of the patient. If the mercury goes too much to the skin, and produces immoderate sweats, it must be suspended, and bark be given in powder, or infused in wine. The infusion of sage, recommended by *Van Swieten* in immoderate sweats, merits a trial in this case. If, during the use of mercury, there are symptoms of general irritation, it may be given with a little opium, or suspended for a few days, and instead of it a dose of opium every night: but if the symptoms of an inflammatory diathesis prevail, a cooling regimen is necessary, and sometimes bleeding.

The mercury must thus be continued, till the virus is totally rooted out; which commonly takes place in five-and-twenty or thirty days, if the complaint is not of an old standing, and if the symptoms havenot been very violent. But if the disease is inveterate, and if the skin or bones are affected, not less than three or four months are necessary to perform a complete and radical cure.

One of the most delicate points in practice, is to decide if the syphilis be radically cured; and when I state that the indifference of patients,

and the ignorance of practitioners on this essential point, are two fruitful sources of anxiety, complaints, and misfortunes, I shall only advance what is confirmed by daily practice. If we possessed a remedy capable of manifesting the last hidden particles of the virus in the body, it would be a most precious discovery, which would enable us to ascertain its presence, as the loadstone shows the presence of iron.

Some historians relate, that the flesh of the Iguana Lizard, and the eggs of the female, bring strongly into action the syphilitic virus concealed in the body; but this singular and interesting fact wants the confirmation of a philosophical observer. I have remarked, that ferruginous preparations, and particularly mineral waters impregnated with this metal, have produced this effect in several cases, when taken internally in the warm season of the year; but I have not known a sufficient number of facts to be able to draw a general conclusion on the subject.

As soon as the mercury affects the mouth, or whitens any of the gold trinkets which the patient wears, the most essential point is secured; it is certain that it has entered the system, which is absolutely necessary for the destruction of the virus disseminated through the body. The disappearance of the internal, and still more of the external symptoms of the disorder, is another unequivocal sign of the influence of the mercury on the virus. If ulcers produced by a general infection begin to improve or to heal; if pains,

periostoses, or exostoses produced by the virus, begin to disappear during the use of the mercury, we are certain that it has acted on the cause of the complaint; but we are not yet sure that it has entirely destroyed all the particles of the virus spread through the body. Another certain sign that it has acted on the system, is when fat persons grow thin during the use of it. This circumstance, moreover, is to me an evident proof that mercury operates a chemical change in the constituent parts of the blood.

But there are constitutions in which mercury produces no sensible effect, though administered in proper doses, and for several weeks. In this case, we must ascertain whether the mercury has been really absorbed into the blood or not. This may be known by putting some gold leaf for a quarter or half an hour in the mouth, or on the skin; it will grow white if the saliva or perspiration is impregnated with the mercury.

The syphilitic virus may remain long inactive in the body, which often happens, particularly to fat and phlegmatic persons, without giving any sign of its presence: and it afterwards makes its appearance by some general revolution in the body, or from some particular causes, as by illness, the use of some medicines, for example chalybeate waters, violent passions, going from a cold to a warm climate, violent exercise, the use of strong liquors, and excess at table. The virus then produces different symptoms, metastases, &c. in short syphilitic affections, more or

less manifest, or more or less complicated. In order to be completely certain of the effects of the mercury on the virus, and judge, as far as in our power, that it is completely destroyed, that the patient may have no cause of anxious fear for the future, he ought to continue it for a fortnight or three weeks after all the symptoms have completely disappeared. I have known several patients who supported the mercury wonderfully as long as the disease subsisted, who, as soon as ever the virus was eradicated, began to loath it; and this effect was, in a manner, an index of their being radically cured.

But it must be remarked, as I have observed above, that though the virus is perfectly eradicated from the system, and consequently the disorder is completely cured, many examples occur in practice of exostoses, proceeding from the same cause, which remain notwithstanding during life, without any further inconvenience. A caries will sometimes remain, till nature alone, or the aid of art, has produced an exfoliation of the bone. Excrescences, ulcers, fistulas, which remain after a mercurial course, must be considered as local complaints, and be removed by topical remedies.

After the cure is completed, the patient should take the greatest care for some time not to expose himself to cold, particularly to the damp air of the night, because the body is then subject to be affected with rheumatic pains; this may be easily avoided with attention, by warni

baths, frictions over the whole body, and, according to circumstances, by the use of strengthening medicines.

In some cases, particularly when the *primæ viæ*, or the general constitution of the patient, is very irritable, it is proper to join opium with the mercury; and in all cases, it is useful to make the patient drink a decoction of guaiacum or sarsaparilla, during the mercurial course, but still more, after he has taken mercury for some weeks, and when his body is, as it were, saturated with it.

It has been generally observed, and I have seen it on several occasions, that syphilis yields to proper treatment more easily in warm and dry countries and seasons, than in opposite circumstances; and this is what formerly made Montpellier so famous for the cure of the most obstinate and most inveterate syphilis. For the same reason, persons who have not been cured of their syphilitic complaints at Petersburg, Stockholm, &c. sometimes recover in Italy or Portugal; and are there able to bear the mercury without the least inconvenience, until they are perfectly cured; while in cold and wet countries they could hardly take a few grains without injury, and without falling into a salivation. I have seen many striking instances of this kind. Not that there are any particular balsamic qualities in the air of the south of France, of Italy, or Portugal, or that the physicians of Montpellier are more skilful in this branch

of medicine than those of London, Stockholm, &c. as patients often suppose; but merely because the atmosphere is there dry and warm, and sometimes also, because the patient, who previously was indifferent or negligent, becomes more careful, and follows advice with more exactness. However, an able physician has it in his power, in any country, to place his patient in the situation he judges necessary for his cure, by keeping him for some weeks or months, by means of clothing, by a warm apartment, or other means, in an artificial climate, as proper for him as the natural one of Montpellier, Naples, or Lisbon.

CHAPTER III.

OF EXTERNAL SYPHILITIC AFFECTIONS WHICH REQUIRE A PARTICULAR AND LOCAL TREATMENT.

I. OF THE SYPHILITIC OPHTHALMIA.

I HAVE treated in the first volume of ophthalmias which arise from suppressed syphilitic blennorrhagias, or from the immediate application of the virus to the eye by contact. It remains to consider here the ophthalmias which arise from the general infection of the system.

These ophthalmias have mostly their seat in the eye itself; they are, in general, extremely painful, and so obstinate, that in a great many cases, they last whole weeks and months. They are never cured without a regular and complete course of mercury; and the oxymuriate of mercury has been found in such cases particularly useful. As to other points, the patient must observe a very strict diet, abstain from all spirituous liquors, and avoid a strong light as much as possible; he must, moreover, apply leeches, blisters, and repeated purges, and after these remedies, fomentations with lukewarm

water in which some opium has been dissolved. At the end of the cure, a little alcohol mixed with water may be used with advantage, or a very diluted solution of sulphate of copper; for example, two grains in four or six ounces of distilled water. In some cases, particularly if the eye-lid is the part affected, the external use of the mercurial ointment is useful; or what, according to the observations of Dr. Cullen, is preferable, the ung. hydrarg. nitrat., triturated with twice the quantity of hog's lard, to render it less acrid. Liquid laudanum occasionally dropped into the eye, after proper evacuations, sometimes gives remarkable relief; and good effects have also been produced from bathing the eye, five or six times a day, in a diluted solution of oxymuriate of mercury.

Sometimes the virus falls on the lachrymal sac, and ducts, and produces a fistula which requires a mercurial course, and afterwards, if the complaint be obstinate, the skill of the surgeon is requisite, in order to re-open the passage of the tears. It is right to remember, that the application of all external means becomes useless, as long as the virus is not radically destroyed in the system.

Sometimes it attacks the optic nerve itself, and occasions amaurosis. The best treatment in this case is the internal use of oxymuriate of mercury, and externally, twice a day, the sulphate of mercury, as a sternutatory.

II.—OF DEAFNESS, AND OTHER SYPHILITIC COMPLAINTS OF THE EAR.

Syphilitic deafness proceeds, 1st. From a suppressed syphilitic blennorrhagia. 2d. From the virus disseminated in the blood, and deposited in the ears. 3d. From syphilitic ulcers, or swelling in the back of the mouth, affecting the Eustachian tubes which open into that part.

I have spoken of the first kind in the first volume. The second is a simple affection of the organ of hearing, or complicated with an ulcer, a caries, or an exostosis in the bones of the ear, or even sometimes with abscesses in the brain. The third, produced by ulcers which affect the orifice of the Eustachian tubes, often consists rather in a disagreeable depravation of hearing, (*pseudocoia*, or *tinnitus aurium*.) All these affections are sometimes accompanied with violent pains, and a puriform or purulent discharge from the ears.

They require a complete syphilitic treatment. The vapour of warm water, or injections with a little tincture of opium, or myrrh and honey, sometimes help to relieve the patient. As to topical applications for the ulcers in the back of the mouth, vide infra, *Sore-throat*, *Ulcers*, *Caries*.

III. — OF THE SYPHILITIC HEAD-ACH.

(Kephalalgia Syphilitica.)

THE syphilitic head-ach is produced by the virus irritating the membranes of the brain and cranium, or caries, exostoses, or hyperostoses, which compress or irritate the brain by their sharp points, and thus sometimes cause terrible head-achs, and even mania, and fatal epilepsies. These head-achs are often obstinate, and sometimes incurable ; they require the general syphilitic treatment. The use of the trepan has sometimes succeeded in cases that were judged desperate. The patient is also sometimes relieved by sleeping on a hair matrass on the floor, with his head uncovered, and keeping the body cool during sleep.

IV. — OF THE SYPHILITIC TOOTH-ACH.

(Odontalgia Syphilitica.)

THE syphilitic virus, when it attacks the eyes, the mucous membrane of the nostrils, and that of the throat, sometimes also attacks the gums, and produces a tooth-ach, which, however, must be carefully distinguished in practice from that which is produced by the use of mercury.

The syphilitic tooth-ach requires frictions in the gums, with the submuriate of mercury.

V. — OF SYPHILITIC COMPLAINTS IN THE
NOSTRILS.

ULCERS of the nostrils, which owe their origin to the immediate application of the virus from being touched by fingers that have been in contact with the virus, must be carefully distinguished from those owing to a general infection, and known by the name of ozæna, (*Ozæna syphilitica*.) The ozæna is principally situated in the mucous membrane which lines the frontal sinuses, and the conchæ narium, and upper jawbone: it is often complicated with a caries of those bones, or those of the nose. The matter which is discharged from it is ichorous, acrid, and very foetid; and as the access for cleaning the ulcer is very difficult, it shortly corrodes the vomer and conchæ of the nose, which fall in pieces. The nose being no longer supported, sinks in, and makes the most beautiful face hideous; the voice becomes hoarse and nasal, and the patient loses at the same time the faculty of speaking and pronouncing his words distinctly. Half a century ago, numbers of such unfortunate persons were to be seen in the streets of almost all the great towns in Europe, with a sunk nose; a sight which, thanks to the progress and perfection of the art of healing, is become very rare at present, at least in London and Paris.

I have observed, that the number of women thus disfigured is much greater than that of

men, probably because women are generally more negligent in the regular and continued course which the syphilitic disease requires, or because they allow the disorder to go too far before they seek for relief.

Besides the general syphilitic treatment, the affected and neighbouring parts must be frequently cleansed with proper washes snuffed up or injected, such as lime-water with the oxy-muriate of mercury, or a few grains of the same in barley-water and honey; and above all, in serious cases, mercurial fumigations.

It must be remarked, however, that ulcers of the nose sometimes arise from other acrimonies, and particularly from the herpetic virus.

VI. — OF THE SYPHILITIC SORE THROAT.

(Pharangitis, et Isthmitis, aut Tonsillitis Syphilitica.)

WHEN the syphilitic virus is absorbed into the blood, in the greater number of cases, it shows its first effects in the throat. The patient feels little pain, or a dull pain, or simply an uneasiness, with some difficulty of swallowing. On examining the throat, sometimes nothing is seen but a considerable swelling of the tonsils and uvula, with much redness of these and the neighbouring parts. The patient often, not even suspecting the cause, thinks he has caught cold, and the common practitioner pre-

scribes resolvent gargles, and diaphoretic or purgative medicines, which are continued for days and weeks; while the disorder, instead of diminishing, goes on increasing, till at length the patient or practitioner begin to suspect their mistake, or till a new physician called in, discovers the real cause. These quinsies seldom last long without forming an ulcer in the tonsils, or uvula, or back of the mouth, or in the pharynx itself, which in this case, by compressing or corroding the orifices of the Eustachian tubes, produces a very disagreeable partial deafness (*tinnitus S. susurrus aurium*); on other occasions ulcers are also formed in the gums.

In all cases, the syphilitic ulcers of the mouth and throat must be carefully distinguished from scorbutic and mercurial ulcers, that is to say, from those which owe their origin to the acrimony which the mercury has given the saliva, and more particularly still from those which, though really syphilitic at first, have since changed their nature, and taken quite a different character: for if the mercury be continued in such cases, the patient may be essentially, and even sometimes irreparably, injured. Practical judgment is the only sure guide in this case. In my opinion, there is little risk in being mistaken as to syphilitic ulcers, if they are covered entirely with a white lardaceous crust, terminated by a hard and raised border, of an intense red, and which make their appearance before the patient has taken much mercury.

Syphilitic ulcers are sometimes so far, or so deeply situated in the throat, or in the basis of the skull, behind the veil of the palate, that it is not easy, and even sometimes is impossible to discover them, particularly at first sight, which may sometimes lead to mistakes on the nature of the disorder. The history of the following cases may be useful to young practitioners.

A man fifty-five years old, of a strong and plethoric constitution, was attacked with a sore throat with fever. The physician, after having felt his pulse and examined his throat, ordered bleeding, with a gargle and an antiphlogistic purge. A week afterwards the disorder not being diminished, another physician was called in, who repeated the bleeding and purging, and ordered a different gargle which appeared to do good. At the end of seven weeks, the patient finding his complaint was not quite removed sent to consult me. Having shown me his prescriptions, I examined his throat, and though I could discover no ulcer in it, I told him I suspected it was syphilitic; he would hardly believe it, and declared that he had not had any syphilitic affection for several years, and had enjoyed perfect health during that period. I asked to see his throat again, to which he very willingly consented, though he was one of those persons whose throat could not be examined without the greatest difficulty. Holding therefore a lighted taper in one hand, and with the other, pressing the root of the tongue as much as possible with

a broad spatula, I discovered very far down in the back of the mouth, on the right side, a deep but small syphilitic ulcer, which had escaped my view the first time, and which I should never have seen, without taking so much pains to examine the throat. I then told him that the cause of his complaint was evident. My advice was followed, and after taking mercury internally for a week or ten days, the sore throat was entirely healed, he continued it for a month longer and was radically cured.

The other patient was a married woman; she had only had a slight difficulty in swallowing for some days, which she attributed to a cold occasioned by the severe weather which then prevailed. I discovered immediately, by inspection, the cause of her complaint; and as females have always a right to great delicacy and discretion on the part of a physician, I told her without making any questions, to keep her throat warm, and promised to send her a medicine which would cure her in a few days. I afterwards made her continue the same remedy under another form, and with some new pretext, for a few weeks, till I considered her to be perfectly cured.

Another patient consulted me for a sore throat, for which he had already taken remedies for three weeks, without any relief. I told him, that from the mere appearance of his countenance and eyes, I suspected that his complaint arose from a very different cause from what he

or those who had advised him imagined. My suspicion was in fact clearly verified by the existence of a large and deep syphilitic ulcer, which by inspection I discovered very low down in the pharynx. He then gave me the following details :

“ Being at Venice, two years before, he had a violent blennorrhagia, which for a particular reason, he wished to get rid of as soon as possible. He had been recommended by a friend to a surgeon, who was in possession of an infallible injection. This surgeon was very unwilling to comply with his request, and foretold him that after his complaint was cured by the injection, the syphilitic disease would certainly break out in some other part of his body ; assuring him that he had seen such effects in other patients who had applied to him. He neglected the advice, the discharge was completely stopped in forty-eight hours, and he had never thought any more of it, having been always perfectly free from any other complaint ever since.”

I consider this case as very instructive. 1°. It shows that the syphilitic virus may remain a long time concealed in the system without producing any sensible effect. 2°. It evidently confirms what I have stated above, on the frequent identity of the virus which produces blennorrhagia, and that of syphilis, and on the conformity of the effects which both produce when absorbed into the mass of blood, an observation which evidently proves the falsity of what several

writers, and lately B. Bell, in his Treatise on Gonorrhœa, have advanced on the non-syphilitic nature of that complaint. 3°. In short, it also shows, what I should not have presumed *à priori*, that a syphilitic blennorrhagia, stopped or repelled, may sometimes produce a general infection, without occasioning a swelling in the testicles, ischuria, strictures, or even *immediate* effects in the system.

These ulcers of the throat, tonsils, or gums, which are also often called aphthæ, are exactly like the chancres or ulcers in the genital parts. The bottom of them is commonly covered with a thick white crust; their progress is generally very slow, but sometimes also very rapid. They therefore require, in this case, besides the mercurial treatment, topical applications to stop their ravages; as injections, or gargles with a solution of oxymuriate of mercury in distilled water, or lime-water mixed according to circumstances, with tincture of myrrh, &c. or rather with frictions on the gums and internal membrane of the mouth, with the submuriate of mercury. It is proper to remark here, that when the virus has been long in the body, or when the patient has often taken mercury before for the same complaint, without having continued it long enough, or from other causes not yet well ascertained, these ulcers of the throat are sometimes very obstinate: the mercury, though administered with prudence and every necessary precaution, seems, if I may say so, to

glide over the surface of these ulcers, without making any impression or salutary change. In such cases, it is proper to make frequent use of injections, or the frictions above-mentioned, or other remedies, which will be noticed hereafter for such ulcers as resist the action of mercury.

In cases where the roof of the palate is destroyed, the patient, in order to eat and speak, must have an artificial palate, made of a plate of gold, platina, or ivory.

If the ulcers of the mouth, tongue, throat, &c. arise from an acrimony of the saliva occasioned by the mercury, it must immediately be discontinued; and they must frequently be touched with a saturated solution of borax, or a solution of half an ounce of alum in a pound of water, or else a grain of sulphate of copper, in one or two ounces of distilled water, three or four times a day. The same solutions diluted with water are of use, or still better, according to professor Springel, a decoction of green walnut-shells, in the form of injections and gargles, six or eight times a day. If they are obstinate, a decoction of bark must be given internally for some days, and every two or three days, a little rhubarb with sulphur. It is proper to remark, that these ulcers often occasion more inconvenience towards evening and during the night, and thus easily deceive an inattentive practitioner, as if they were really syphilitic; and the more so, as ulcers originally syphilitic, sometimes change, during the use of mercury, into very

dangerous mercurial ulcers. During the cure of these ulcers, particularly those of the gums, the practitioner must also be very attentive to prevent their concretion with the neighbouring parts. I have seen cases where, from want of this attention, it became necessary to separate the cheek from the gum with the knife. Ulcers of the tongue, gums, and lips, occasioned by the acrimony, which mercury gives the saliva, sometimes subsist, or return from time to time, even for several years, after the syphilis is cured, and torment the patient, with the idea of some incurable remains of the disease. They will often disappear by the internal use of the decoction of bark, and by the application of alcohol, or the solution of borax with the tincture of myrrh and honey: the sulphureous and alkaline mineral waters are also often very useful in these cases.

Scorbutic ulcers of the mouth require an antiscorbutic regimen and remedies. If the ulcers of the mouth or throat do not arise from any of the causes just mentioned, and if they resist the remedies I have just recommended, then opium, and the most powerful tonics, both externally and internally, in the form of gargles, have sometimes salutary effects. Dr. Nooth has found opium internally, and gargles made with alcohol diluted with water, extremely efficacious, not only in rebellious syphilitic ulcers, but likewise in many others, as well as in all asthenic ulcers which attack the throat. Dr. Hahneman

has recommended a solution of one part of nitrate of silver in a thousand parts of water as an excellent remedy for ulcers of the throat, or other parts which grow worse by the use of mercury.

VII.—OF CUTANEOUS SYPHILITIC AFFECTIONS.

SYPHILITIC spots or blotches (*maculæ syphiliticæ*) are of a red copper colour, little raised, round, hard, with a callous whitish margin, and appear principally on the breast, neck, forehead, and temples, &c. They sometimes appear very soon, but commonly some time after the absorption of the virus has taken place. They are at first broad, and of a clear brown, but in a few days they divide into smaller spots, and take a deep brown colour. At other times they resemble the yellowish-blue colour which remains after the black livid mark of a contusion. They disappear after some days, and others come out in other places, which grow larger, and are covered with a crust or scale which peels off; in short, they change sometimes into real scabs, or broad painful ulcers with high inflamed borders. When they occupy the border of the hair, authors have, with an unsuitable pleasantry, called them *Corona Veneris*. Sometimes a similar eruption appears on the hand, and particularly on the palm; it is of a deep colour, with a white border, which rises a little in the middle, and occasions a desquamation of the epidermis.

SYPHILITIC SCABS (*Herpes syphiliticus*) form thick yellowish crusts, accompanied with a great itching, and a copious oozing of matter. When they appear in the extremities, they often occasion swellings of the inguinal or sub-axillary glands.

Sometimes a general eruption of red, hard, dry spots breaks out all over the whole body, which itch very much, and terminate in desquamation: this is the syphilitic *lichen* or *leprosy*. Sometimes these spots rise in very hard pimples, suppurating at the top, which authors have named the syphilitic itch (*Psoriasis syphilitica*).

Vapour baths judiciously applied, jointly with mercurial remedies internally, are the principal treatment in these complaints.

For *Elephantiasis*, or the *Tuberculous Leprosy*, see Ch. xviii.

For the disorder called *Yaws* or *Pian*, see Ch. xvii.

THE SYPHILITIC SCALD-HEAD (*Tinea syphilitica*) forms whitish crusts under the hair, accompanied with syphilitic spots and pustules on the forehead, and scabs behind the ears. This disease, like the real scald-head of children, is sometimes seated in the bulbs of the hair. It is seldom radically cured, without shaving the head, or pulling out all the hair. After this operation, the ung. hydrarg. nit. with a portion of acetate of lead, or, according to Plenck, the *Liquor ad condylomata* (see Ph. Syph.) generally succeed.

Syphilitic Scabs of the Beard, or Chin, are numerous pustules in the parts of the chin covered with the beard, forming crusts, with an oozing of a gluey matter. The *Mentagra*, of which Pliny makes mention, and which, he says, was very contagious at Rome, being rapidly communicated by kissing, seems to have been a species of scab or lichen of the chin, accompanied with a very unpleasant itching. All these complaints are sometimes very obstinate, and proceed from very different causes; if they are of a syphilitic nature, they require, besides the general mercurial treatment, topical applications more or less powerful, of which the chief are, *unguentum hyd. nit.*, *lotio syph. lutea*, *mel. hydrargyri*. Vide Phar. Syph. In rebellious cases, a solution of oxymuriate of potash may be tried.

The scabs on the chin, as well as those of the scrotum, arising from different sources, when treated by repelling medicines, frequently occasion very troublesome internal disorders, particularly when the practitioner mistakes their origin; the intelligent physician sometimes performs cures in these cases that are considered as miraculous. If they are syphilitic, a medical course cures them radically.

It is in these different diseases of the skin, that Plummer's pills, and also the oxymuriate of mercury, is often so very useful. I must, however, observe, that though this last remedy removes very well the complaints of the skin,

it but seldom cures the syphilis radically; at least I have seen it frequently fail in our climates.

In certain syphilitic affections of the skin, I have found, that besides these internal remedies, much good was obtained by warm or vapour baths, in which were dissolved some grains of oxymuriate of mercury, taking care at the same time to rub the affected part gently. See the Chapter on Mercurial Baths.

The topical application of the phagedenic water, or of the ung. hydrar. nit. alone, or with the addition of a portion of acetate of lead, I have sometimes found succeed in complaints of the same kind, which were more obstinate, and against which many other remedies had been employed without effect. It is peculiarly in these complaints, as well as for all other obstinate and inveterate syphilitic affections, that the decoction of Pollini, the *decoctum Lusitanicum*, the decoction of green walnut-shells, &c. deserve particular attention.

I have seen one of the most obstinate and inveterate diseases of the skin, of a syphilitic nature, against which all other remedies had failed, cured by a solution of sub-sulphate of mercury, given in very small doses. Some physicians have also obtained great success with the white oxyd of arsenic. Dr. Quarin affirms, that he has cured very obstinate syphilitic itch and scabs, with a strong aqueous infusion of *Teucrium scordium* taken from one to four pounds a day. Dr.

Odhelius and Biornland have communicated to the public, in the Memoirs of the Academy of Stockholm, some interesting observations on the utility of the *Ledum palustre* in infusion, in several cases of leprosy. This plant deserves to be tried in obstinate syphilitic diseases of the skin. I have found the decoction of green walnut-shells very useful in many of these cutaneous complaints. But I must remark, as a general rule, that without the use of warm baths, or according to circumstances, vapour baths, the best remedies often fail to produce the desired effect.

VIII. — OF SYPHILITIC EXCRESCENCES.

I HAVE already spoken, Chap. xiv. Vol. i. of excrescences and fissures; I have there said, that these complaints sometimes derive their origin from a source very different from the syphilitic virus, for example, from any acid or other humour, but that nevertheless, they often proceed from the same virus, applied originally to the genital and neighbouring parts, or from the general infection of the system. The latter are never radically cured without a complete mercurial course.

Excrescences situated on the margin of the anus are called *cristæ*, from their resemblance to the comb of a cock.

Condylomata are fleshy, protuberant, painful excrescences, placed round the anus, or near the

genital parts. They differ from *warts* and *fici*, by their irregular form, by their spongy substance, and the ichor and pus, of a disagreeable smell, which frequently oozes from their surface.

Fici, (*ficus*, *sycoma*, *sycosis*, *mariscæ*,) called also the mushrooms or Evil of St. Fiacre, are fleshy excrescences round the anus, the *labia*, and the prepuce. *Warts* commonly appear on the red and moist surfaces of the genital parts, but sometimes also on other parts of the body. I have seen a young man, who had a thick beard and his chin all covered with little *warts*. The *warts*, or horny excrescences of which Zapata speaks in his "History of the Conquest of Peru," tom. ii. chap. i. p. 80. that were attended with such dangerous consequences, and from which hardly one man in all the Peruvian army was exempt, appear to have been of a syphilitic nature.

The treatment is the same for all these sorts of complaints when they are syphilitic. A complete mercurial course often removes them without any other remedy. In other cases, topical applications become necessary; such as *liquor ad condylomata*, *lotio syphilitica lutea*, the powder of savin, and it is even sometimes proper to touch them several different times with the oxy-muriate of antimony, or some other caustic. Sometimes they may be removed by a simple ligature, but if all these means are unsuccessful, they must be taken off with the knife, or according to circumstances with scissars. The blood

must be allowed to run for some time, and then the wound to be kept clean until it is healed. If after the operation, any roots appear, they must be touched with caustic, or the application of red oxyd of mercury, or savin powder, because, without this precaution, they are subject to appear soon again. If the condylomata are very large, it is right to apply leeches, which often diminishes their size considerably, and there is less difficulty afterwards in destroying them by topical applications.

I have often cured excrescences which, from their shape are called cauliflowers, or leeks, with the muriatic tincture of iron, (*tinctura muriatis ferri*, Ph. Syph.) regularly applied during several weeks.

Warts often yield speedily to the application of nitric acid, applying afterwards, if necessary, savin powder, or the *liquor ad condylomata*. If they re-appear, it is a sign that their root is not destroyed, and the application of topics must be renewed with greater care.

The electric spark passed through these excrescences sometimes makes them fall, by producing an inflammation at their basis. Where they are but few, and their basis is thin, a simple ligature is sometimes sufficient.

I have seen a great number of little warts in the genital parts disappear by applying frequently the *lotio syph. lutea*.

Some writers have recommended the application of caustics alone, for the extirpation of con-

dylomata and other excrescences of that kind; but I have sometimes seen this method bring on disagreeable consequences. If these excrescences re-appear after having been extirpated by the bistoury, as sometimes happens, *Quarin* says, he has found an application of bistortium or tormentilla very efficacious. As these excrescences seem to be produced by a redundant or vitiated secretion, this astringent remedy, or the application of a weak solution of sulphate of copper, may be useful.

IX. — OF SYPHILITIC CHAPS, OR FISSURES.

I HAVE little to add to what I have said on this subject, vol. i. chap. xiv. When fissures are purely syphilitic or complicated with that virus, they require an internal mercurial course; at the same time they should be frequently rubbed with common mercurial ointment, or with the *unguentum hydrarg. nit.*; sometimes an ointment made with butter of cacao and nitrate of mercury is preferable. The stricture of the anus or vulva, which sometimes happens in consequence of fissures, or ulcers in those parts, requires the use of bougies proportioned to the coarctation of the canal, or even separation in cases accompanied with much pain.

The case of the patient whom I have mentioned (vol. i. chap. xiv.) is the more remarkable, as fissures appeared in the palms of both

hands after a simple blennorrhagia without ulcer, and that they obstinately remained after a complete mercurial course.

X. — OF SYPHILITIC ULCERS.

I HAVE spoken (vol. i. chap. xii.) of syphilitic ulcers of the throat, eyes, genital parts, &c. which owe their origin to the virus immediately applied to those parts; it remains for me to treat of those ulcers which appear on the surface of the skin, whatever be the part, in consequence of a general infection of the system.

These ulcers are in general less subject to make a rapid progress, or to have dangerous consequences, and therefore seldom require topical remedies. A complete mercurial course is commonly sufficient. Notwithstanding there are cases where it is not sufficient, and then we must have recourse to topics. Sometimes these ulcers are complicated with a caries, or internal corruption of the subjacent bones; at other times with scurvy, the herpes, or scrofula, or other less known cacochymies or cachexies.

The most important, and often the most delicate point, is to discover the real nature of these ulcers, whether simple or complicated, particularly in women. I believe it may be taken for a pretty general rule, in our temperate climates of Europe, that syphilitic ulcers seldom appear on the legs, except in cases of syphilitic caries. If,

therefore, we meet in practice with obstinate ulcers, and of a doubtful nature, above the knee, whatever part of the body it may be, we can hardly be deceived in suspecting syphilis. Their appearance moreover will assist the judgment of the young practitioner on their nature; though very large, they hardly ever form a good supuration, or a real pus; their base is commonly covered with a white crust, or a dirty-looking mucus, and their edges are often high and callous.

If these ulcers are simple, and any topic be judged suitable, the mercurial honey is the best remedy, and is certainly, in all cases, preferable to the boasted suppurative ointments. It is proper, particularly in hospitals, to dress them with this remedy, but only once every two or three days; and instead of covering them with a heap of lint or linen, I have used with success a piece of fine sponge. When the sponge is taken off, it must be plunged in hot water, and after having been well cleaned, it must be dried, not in the sun or on the windows, as nurses would think best, but by the fire in winter, and in a sort of cage inaccessible to the flies in summer; for if it be dried in the open air, the flies soon lay their eggs in it, and the sponge thus dried, and in appearance very clean, when applied to the ulcer is soon covered with worms, which an inattentive surgeon might falsely suppose to be engendered by a putrid ulcer. In some cases it is right to join opium with the internal use of

mercury. In obstinate ulcers of this kind, the decoction of guaiacum sometimes produces remarkable effects. One may also try, according to circumstances, the oxygenated remedies both internally and externally.

There are other cases to which I should wish to draw the attention of young practitioners, it is when syphilitic ulcers are complicated with herpes or leprosy. These ulcers, treated like simple syphilitic ulcers, begin by assuming a better appearance, but they do not cicatrise, and rather become stationary by the use of mercury; the other acrimony then seems to gain the upper hand; or else the body becomes weak and irritable, requires the mercury to be laid aside, and a different regimen and method to be followed. In such cases, after having followed an antiherpetic, antiscorbutic method, &c. or, according to different circumstances, a strengthening or anticachectic method for some weeks, we observe the ulcer change for the better and heal.

In other cases, we see that in proportion as the patient gains strength, or that the herpetic cachexia is subdued, the syphilitic virus resumes its power, and again evidently shows its effects. These cases, which often prove fatal under the hand of ordinary practitioners, require great judgment and attention, and sometimes an uncommon sagacity on the part of the physician. These complaints require, not a mixed treatment, as some writers have

proposed, but an alternating plan. I have had patients, with whom I have been obliged to return even four times to the mercurial treatment, after having interposed as many times a strengthening antiscorbutic treatment, &c.; and I have succeeded at last in saving them, and in radically curing complaints which had been abandoned as desperate. It is during these intervals, or after having destroyed entirely the syphilitic virus, that the internal use of carbonate of potash, or soda, or, according to different circumstances, the oxyde of iron or bark, or the decoction of green walnut-shells, the use of wine, sea-bathing, &c. sometimes produce the most surprising and most salutary effects. But in no case must medicines be given which contain the astringent principle, such as bark, together with mercury; this would be to destroy the effect of both.

It is in the same intervals in which we are obliged to abandon the use of mercury, that the powder of bark, rhubarb, columbo, or the oxydes of copper, lead, zinc, the nitrate of silver, &c. used externally, have sometimes the happiest and most striking effects.

XI. — OF SYPHILITIC CONSUMPTION.

(*Phthisis, et Atrophia Syphilitica.*)

THE emaciation of the body, in general, is without fever, or accompanied by what is called

a hectic fever. The first is called atrophy, (*atrophia*); the second, consumption, or phthisis, may derive its origin, 1°. from a syphilitic ulcer of the lungs, or some other viscera of the body; 2°. from syphilitic herpes badly treated, and repelled from the organs of generation, or any other part of the body; 3°. from an obstinate syphilitic ulcer in some external part of the body; 4°. from syphilitic caries, or an internal corruption of the bones.

Consumption, as well as atrophy, sometimes proceeds from phagedenic ulcers, produced or kept up by the use of mercury, or else without any ulcer, from the sole use of very acrid mercurial preparations, particularly the oxymuriate of mercury. In fact, daily experience shows us very evidently, that all mercurial preparations have, in a greater or less degree, a tendency to emaciate the body. This sort of emaciation is not dangerous; for after the mercurial course, patients generally resume their natural *en bon point*, and even sometimes become fatter than they were before.

Atrophy sometimes proceeds from a very violent salivation, which obstinately continues even after the mercury has been discontinued; and which proceeds either from the irritation caused by the peculiar acrimony of the saliva, or from a relaxation or erosion of the excretory ducts of the salivary glands. Sometimes atrophy is the effect of sudorific decoctions, or the use of drastic purgatives.

Consumption, accompanied with abundant expectoration, and a syphilitic ulcer of the lungs, requires the use of mercury. I have mentioned in chap. x. a singular case where this disease was cured by chance, by the internal use of the grey mercurial ointment. Professor *Frank* cured a similar case, attended with spitting of blood, purulent expectoration, and the most complete emaciation, by a mercurial course: it had been produced by the repulsion of a syphilitic eruption in the scrotum. But it is often difficult to form a diagnostic, particularly if there is no eruption on the skin, nor any other syphilitic symptom on the body. Sometimes our suspicions on the nature of this disorder acquire an additional degree of probability from indirect circumstances, and principally if the patient be not naturally of a consumptive habit.

In all these cases, we ought to act with prudence, and give mercury with precaution, gradually, and by combining it, according to circumstances, with milk diet, or the decoction of sarsaparilla. If the patient regains his strength by the use of mercury, as happened in the above-cited cases, we may boldly persist in it until a complete cure be obtained.

The hectic fever requires bark, milk, and opium, or, according to circumstances, the decoction of Iceland moss alone, or with the root of *polygala amara*, in water or milk.

The decoction of sarsaparilla with the sul-

phuret of antimony is often very useful in syphilitic consumption, particularly when given in small doses with milk. If the patient feels his chest oppressed by this regimen, a slight bleeding will generally ease him directly. But if, on taking two or three ounces of this decoction, every three or four hours, the oppression continues, it must be given up. Sarsaparilla in powder, from half an ounce to an ounce a-day, has also proved very useful in cases of this kind. The decoction of malt, and other antiscorbutics, are best for patients who have the scurvy complicated with syphilitic consumption. The oxygenated medicines deserve a trial in this case.

As to the treatment of consumption, proceeding from mercurial or phagedenic ulcers, I must refer the reader to the chapters in which I have treated these matters.

Atrophy produced by the abuse of mercury, or its acrid preparations, requires mucilaginous and gelatinous medicines, good nourishment, warm baths, and the internal use of bark, with sulphur, or alkaline and sulphurous mineral waters. See chap. xii.

For the treatment of atrophy arising from salivation, see chap. viii.

The treatment of atrophy which arises from too great a loss of semen, or rather perhaps from the violent and frequent irritation of the nerves which accompanies that evacuation, and which

has been described by Hippocrates under the name of *Tabes Dorsalis*, does not enter into the plan of this treatise.

XII. — OF SEMINAL WEAKNESS ARISING FROM
SYPHILIS.

THIS affection, though exempt from actual danger, is alarming, and makes the minds of some patients very unhappy. It is sometimes occasioned by the virus concealed in the body. I have often observed it, but particularly in a patient who, several months before, had been attacked with a violent blennorrhagia, of which he had at last been cured, after having gone through a tiresome and ill-managed treatment. The only symptom which remained was a complete impotence, and a want of all venereal desire, which vexed him exceedingly. When he consulted me, I conceived that his complaint arose from the virus which had remained in his body after the ill-treated blennorrhagia, and I prescribed a mercurial course, and afterwards tonic remedies, with thirty or forty drops of alcoholized sulphuric ether (the anodyne liquor of Hoffmann) morning and evening. I also ordered him to wash the scrotum and spermatic cord twice a day, with a large spoonful of the same liquor, mixed with water. In three weeks he was as well as ever. The treatment of impotence, and weakness of the genital organs

arising from other causes, does not enter into the plan of this work.

XIII. — OF SYPHILITIC PAINS IN THE MUSCLES,
TENDONS, AND NERVES.

SYPHILITIC pains, fixed or wandering, acute or chronic, attack the head, sternum, throat, the muscles or joints of the extremities, or only the genital organs of men, and the neighbouring parts; and in this case, the glands, the perinœum, the testicles, the groins, the anus, the bladder, are alternately affected; other times, pains in the body alternate with discharges from the urethra or vagina, or with ulcers of the genital parts. I have seen a case where the virus, after having produced a violent pain in the sternum, fell on one of the inguinal glands, and produced a bubo, which was cured by mercurial frictions.

All patients who have been previously attacked with this disease, commonly attribute to the remains of the virus, the fixed or wandering pains they feel from time to time, and they are sometimes right: but it must be observed, that these pains so generally attributed to the syphilitic virus, very often proceed from very different causes, which in practice must be distinguished with precision.

We ought therefore to examine, 1°. If these complaints are owing to any remains of ancient virus, to blennorrhagias, ulcers, or syphilis badly or only

half cured. 2°. If these pains are not owing to the mercury itself; and in this case, if it is the immediate effect of the mercury which has fixed itself in some spot, after producing its effect on the virus, or else if it may be attributed to the increased irritability of the nervous system, or a weakness of the organs, the frequent consequences of a bad administration of mercury. 3°. If these pains are not perhaps owing to an imprudent and frequently repeated application of some preparation of lead externally or internally. 4°. If they are not really rheumatic, gouty, or scorbutic.

It is, moreover, important to distinguish if these pains, spasms, &c. are acute, and attended with symptomatic fever; as in this case, they are often the consequence of perspiration recently and suddenly checked during a mercurial course; or if they be chronic and of older date.

Violent and fixed pains in the same spot often indicate that the bone below is affected, although no tumour appears. All syphilitic pains increase, and generally become very violent during the night, principally when the patient begins to get warm in bed; but though several authors have indicated this as a characteristic sign to distinguish syphilitic pains in general, it is not always so; and on the other hand, there are rheumatic pains, and others produced by colics from lead and other causes, which equally increase sometimes in bed during the night.

I have spoken above (vol. i. chap. xii.) of the

treatment of wandering or alternating pains in the genital and neighbouring parts.

If the pains proceed from a syphilis not radically cured, the use of mercury, joined, according to circumstances, with sudorific decoctions and warm baths, will be necessary to complete the cure, though the patients are often of a contrary opinion, which they found on the length of time, and on the quantity of mercury they have already taken ; but if the virus is not the cause, the mercury becomes evidently hurtful.

Authors who have spoken of these chronic pains generally attribute them to the mercury which has fixed in the bones ; and in fact the annals of medicine furnish examples of subjects, after whose death mercury has been found in globules in different parts of the body, particularly in the bones and their cavities. Whatever degree of belief one may give to these stories, it is certain, that in general these complaints may be cured, and sometimes easily enough, by a suitable regimen, by warm baths, particularly those of alkaline and sulphurous mineral waters, joined with frictions, and appropriate tonic remedies internally, either alone or with antimonials. Vapour baths, during and even after the use of mercury, are one of the most powerful remedies against acute pains in the muscles or joints, and other complaints occasioned often by mercury which, reduced into a metallic form in the body, probably insinuates itself under the periosteum, the aponeuroses, the

sheaths of the tendons, &c. Perspiration excited in this manner, though abundant, does not depress nor exhaust the strength.

But if these pains, instead of being chronic, proceed from a sudden suppression of perspiration during the mercurial course, tonics do not answer at all. The remedy which I have found very efficacious in many very serious cases of this kind, where the patient seemed attacked with a general spasm or tetanus, is, besides warm baths, and particularly vapour baths, the yellow hydro-sulphur of antimony, joined with the extract of hemlock, in the dose of from four or five as far as fifteen grains of each a day.

Dover's sudorific powder is also a very useful remedy in some of these cases, as well as in rheumatisms, provided a proper regimen be observed. But if it be given in the ordinary way, no good is to be expected from it. In order to obtain the most powerful effects from this powder, it should be prescribed in the following manner : —The patient should take a dose of it from twenty to twenty-five grains, at six or seven in the morning, and not in the evening as is customary. He must cover himself with flannel, without any linen about him, and keep himself quiet without sleeping, till he begins to perspire ; he must then take a full coffee cup of the warm infusion of sage, or white wine whey, and must repeat it every half hour, till the perspiration is spread over his whole body. This perspiration may be still more excited by the warmth of the bed, and

by warm bricks applied to the feet of the patient. He will thus continue to perspire gently, without falling asleep, for eight, ten, or twelve hours, taking from time to time some warm drink or whey, as I have said above. If he finds the perspiration very troublesome, he may take off a blanket, and put his hands out of the bed. About five or six in the evening he may dry himself by putting on a warm shirt and changing the blankets. He may then take a little sago or rice, with two or three glasses of good white wine, and a little bread; and may then go to sleep and remain quiet all night. The next morning the patient may breakfast and eat as usual, but he should remain in bed the whole day, and if his pains are not gone, he must resume the sudorific dose the following day, with the same precautions. A good preparation for the administration of this powder, is to take a warm bath, during which the whole body is rubbed over gently.

If these pains proceed from an increased irritability produced by a wrong use of mercury, a fortifying regimen and remedies are proper, either alone, or combined with antimonials. During the use of these remedies, the patient should take some warm baths, simple or sulphurous; but when he has regained a little strength, he may take cold baths, and particularly sea-bathing, frequently. In all complaints of this kind, one of the most essential objects is warm clothing, as a flannel waistcoat and drawers,

worsted stockings, &c. From want of attention to these precautions, I have seen the best remedies fail, or the patients subject to relapse.

It would appear that in some cases these complaints must be attributed to the mercury itself. I have known many patients, who, being obliged to take mercury on several different occasions in their youth, found themselves when advanced in years attacked with the most violent rheumatic pains whenever they were forced to take the smallest quantity of mercury. Bark and opium administered even in large doses, and the sulphurous mineral waters, are the most useful remedies in these cases.

Stoll informs us, that, in vague pains, in herpes, and other syphilitic complaints, which had obstinately resisted the different mercurial preparations, he has often employed with success an electuary composed of three ounces of alder syrup, and three drachms of the extract of *gratiola officinalis*, with three grains of the oxymuriate of mercury. In some cases he substituted the extract of *aconitum amarum*, to that of *gratiola*.

XIV. — OF SYPHILITIC AFFECTIONS OF THE BONES.

THE bones are more rarely affected by the syphilitic virus in our days, except in confirmed or neglected syphilis. But I saw a patient, who having an ulcer on the glans, was attacked, the

fifth day after, with a considerable tumour in the inferior part of the cubitus. When the virus attacks the solid parts, it produces in them, 1°. swellings of the periosteum (*Periostosis*); 2°. or of the bones themselves (*Exostosis*), often attended with dreadful pains; 3°. a corruption of the external or internal substance of the bone, known by the name of *caries* and *spina ventosa* (osteophthoria). It is particularly the bones least covered with muscles, which are most subject to be attacked by the syphilitic virus; principally the tibia, sternum, clavicle, elbow or ulna, and the bones of the skull, nose, and palate.

By the syphilitic *exostosis*, we generally mean a hard tumour or swelling, circumscribed on the bone; and called *hyperostosis*, when the substance of the bone itself forms an excrescence. Authors have employed different other vague denominations for this sort of tumours, by which they meant to designate their different seats, or different degrees of hardness, whence the names *Tophus*, *Nodus*, *Gummi*. Many have reserved this last name for the tumours which come sometimes on the aponeuroses of the muscles; and they call *Nodus*, a swelling less hard, and more elastic, so as to give way to the pressure of the finger; and *Tophus*, when it is very hard. Others have distinguished the exostosis into *true*, if the swelling is owing to an augmentation of the substance of the bone itself, and *false* when the tumour proceeds from a swelling and inflam-

mation of the periosteum or the membrane which covers the bone. But the hardness of the nodus, or false exostosis (*Periostosis*), is often as great as if the bone itself was affected; whence it happens that these tumours have been taken, and are now still commonly taken for real affections of the bones, which fortunately are less frequent than is commonly imagined. We have learnt from the dissection of dead bodies, for some time past, that these tumours, particularly in the beginning of their appearance, are generally in the periosteum, and rarely in the bone itself. Sometimes, however, and particularly almost always, when they have been neglected or ill-treated for a long time, the bone itself becomes affected in that part; its *laminae* rise, and form what is called a real exostosis.

I think all these different denominations and distinctions are useless in practice, because there is no practitioner, however conversant in the art, who is able, in most cases, to say if the tumour be an affection of the periosteum, or of the bone itself; or, to use the common expression, if it be a true or false exostosis. Notwithstanding, it may be considered as a general proposition, that the virus more rarely attacks the bone, and that it is commonly the periosteum alone which is affected, excepting in cases where the disease is of very long standing, or been greatly neglected.

Syphilitic periostoses and exostoses are commonly very painful, principally during the night,

when the body is warm in bed ; or even when the affected part is exposed to external heat, or when pressed. But it must be observed, that though syphilitic pains of the soft parts, as well as those of the periosteum and bones, are in general more violent in the night, when the parts affected are covered and warm in bed, than during the day, when they are exposed naked to the air, yet it is not so constant but that we sometimes see the contrary, as I have already observed. In some cases, the pain is continual day and night ; in others it returns periodically once or twice in twenty-four hours, from two to two, or three to three hours, leaving the patient quiet in the intervals.

The late Mr. Justamond radically cured several patients attacked with old pains of the bones, and inveterate hydropic œdemas, by simply enveloping the affected limbs with raw wool, or with hemp yarn, which he covered with oil-cloth.

Exostoses often remain in that state of tumefaction during life, though the virus be radically destroyed.

The virus, when it acts more powerfully, or for a longer time on the bone, produces a real chemical decomposition of its constituent parts, a caries in the laminæ of the bone, or a corruption in the interior of the cylindrical bones. Sometimes this internal corruption of a bone takes place, at least for some time, without any apparent external tumour. This last complaint

has from ignorance very improperly been named *spina ventosa* ; for in this dreadful disease, there is no question of a thorn, nor of air, or wind. In some rare cases, the entire substance of the bone thickens ; in others, several bones degenerate at once, and become brittle or carious.

When the bones of the skull are affected with the virus, they sometimes cause the most insupportable head-achs, amauroses, deafness, epilepsies, and even death. When the bones of the nose, particularly the vomer, become carious, they fall in pieces, and the nose sinking, leaves an indelible mark of the disease. If the bones of the palate affected by caries fall, the patient cannot articulate distinctly without an obturator made of lint, ivory, gold, platina, or silver.

The most serious, and generally most fatal cases, though fortunately unfrequent, are when the virus has fixed its seat in the cells of the sphenoid bone ; it often makes considerable ravages before the complaint is discovered ; but on examining with attention, and repeatedly, a change is observed in the natural state of the pharynx, or little dirty-looking superficial ulcers, or a sanious distillation. In all these unfortunate cases, mercurial fumigations, by the nose and mouth, must never be omitted, and must be continued every other day, or every day, for a suitable period.

Sometimes the caries is not idiopathic, that is, it is not caused by the virus lodged in the bone itself ; but is the consequence of a

denudation of a portion of the bone, produced by the progress of a syphilitic ulcer, or by the application of caustics or other remedies ; this is the symptomatic caries.

It is a received opinion with many practitioners, that the bones of persons affected with syphilis, become brittle, and are, consequently, more subject to fractures ; but this general assertion wants confirmation. Professor *Leber*, of Vienna, communicated to me, some years ago, a curious and interesting observation, which deserves a place here. A man, apparently in good health, walking about his room, slipped, fell, and broke his leg. A skilful surgeon reduced the fracture, and put on a proper bandage. After the patient had been six weeks in bed, it was observed that the fracture was not consolidated, that is, that what is called a callus was not formed ; and as the bone appeared to be in the same state three weeks after, it was suspected that the syphilis, with which the patient had been previously affected, was the cause ; it was determined to put him through a mercurial course, during which the callus was consolidated, and the fracture completely healed. Some well-ascertained facts of this kind would throw infinite light on the nature and effects of the syphilitic virus. Those, among my readers, who would wish for further information on the effects of this virus on the bones in different parts of the body, may read with satisfaction the work of Dr. *Bonn*, entitled

Descriptio Thesauri Ossium morbosorum, Haviani, in 4to.

Some authors have lately maintained, that the syphilitic virus sometimes produces that curious disease properly called *Malacosteon*, or *Rachitis* ; but from the researches I have made on this subject, it seems more probable that these practitioners, not knowing the cause of this disease, and wishing to conceal their ignorance, have attributed it to the syphilitic virus, much the same as J. Hunter and many others ascribe the greatest part of phagedenic or obstinate ulcers to scrofula. This softness of the bones, of which there was a striking instance some years ago at Paris, is a real decomposition of the substance of the bones : there is not one well-ascertained fact to prove that the syphilitic virus ever produced this disease.

All syphilitic complaints of the bones require a complete mercurial course, and continued longer than for the affections of the soft parts ; for it is sometimes necessary to continue the use of mercury for three or four months, in order to obtain a radical cure. They often return three or four years after the complaints of the soft parts have only been superficially cured. The precipitation with which the use of mercury is abandoned before the virus is completely destroyed, is often the cause of affections in the bones ; for the virus, in this case, sometimes remains hidden in the body for a very long time, and without producing any visible effects,

until it appears at last all of a sudden with greater force.

In all syphilitic complaints of the bones we must carefully avoid salivation; for if it comes on, the mercury, though introduced into the body in great quantities, will not effect a radical cure; though it should even produce that debility, that cachectic state, which some authors consider as necessary for exterminating the virus. I think that this fact alone is sufficient to show that this theory of the action of mercury is quite imaginary; for in these cases we clearly observe that the mercury gives no relief, as long as it does not reach the virus, and does not, as it were, come in contact with it.

Mercurial frictions, or the saline mercurial preparations, are the fittest remedies for the syphilitic diseases of the bones, particularly the nitrate of mercury, and sometimes the oxymuriate of mercury, administered in the dose of a quarter of a grain, twice or thrice a day, with the decoction of guaiacum, or sarsaparilla, to which, in some cases, is added with advantage the bark of the *daphne mezereum*; at the same time the patient should take a warm bath every two or three days.

As to topical remedies, I consider them of little utility in general in the swellings of the bones. However, there are cases, when the violence of the pains, or other circumstances, oblige us to have recourse to them.

If the swelling appears to proceed merely

from a thickening of the periosteum or ligaments, a vigorous action must be excited in the part, by means of frictions with the ammoniacal liniment, or by blisters. If the swelling remains after the mercurial course, if it is not painful, and does not disorder the functions, it is perhaps better to do nothing; for it disappears sometimes of itself a long time after: but if it resists the mercury, and at the same time causes much pain, we must endeavour to relieve it. The most efficacious remedies for this purpose internally, are opium in large doses, and the decoction of mezerion, with antimonials, and a saturated decoction of sarsaparilla; and externally, blisters, or the mercurial ointment, with camphor or opium, or else frictions with the submuriate of mercury. Sometimes, in obstinate cases, mercurial fumigations directed on the tumour are very efficacious. There are other very obstinate cases of exostosis, that require an alternating treatment of mercury and vegetable medicines; and I have seen cases where it was necessary to recommence this alternating course four times before a radical cure was effected. The decoction of sarsaparilla is the most useful remedy, next to a mercurial course, in these cases. I have also seen excellent effects from the decoction of Pollini, given in the intervals of the mercurial course. At other times, the violence of the pain is quickly dispelled by the application of caustic on the exostosis; and the ulcer produced by it, is dressed afterwards with

the mercurial honey. But the application of caustic, as well as incision which has been recommended, are prejudicial when the bone beneath the tumour is not carious; for it runs the risk of becoming carious as soon as it is exposed to the air. However, if after a mercurial course, the pain and swelling continue or increase, it is probable that there is a suppuration, or that the bone is carious; and in this supposition, or if it be certain that there is a caries beneath, it is right to make a large square incision down to the bone, in order to discharge the pus, or help the exfoliation; or else, what in this case is sometimes preferable, caustic is applied on the tumour, which is then covered with an emollient cataplasm, and a little digestive ointment till the scar falls off. If the bone is carious, it is often useful and necessary to apply the trepan. For this purpose, several holes, pretty deep, are made in the bone with the perforator, which not only give a free exit to the pus or ichor in the interior, but also favour the exfoliation, and even sometimes the carious portion is thus entirely carried off, or removed by an instrument.

To assist exfoliation, the application of the volatile oil of sassafras, or of sabine, have also been recommended; and Professor *Plenck* has proposed, with the same view, a lotion composed of tincture of mastic, and oxy muriate of mercury, with rose honey, administering at the same time internally, mercury with assafoetida. But

in all cases of idiopathic caries, we must remember that no cure can be expected until the virus be entirely extirpated from the system.

Symptomatic caries does not require mercury; the exfoliation goes on slowly, and by degrees, after the mercury has destroyed the virus in the soft parts. It may be assisted by the external application of the tincture of assafoetida, or mastic, and sometimes by the trepan.

It sometimes happens, that by length of time, and when syphilitic remedies have been neglected, the bones in different parts of the body become carious, swell, and are affected in such a serious manner, that though the virus be destroyed by mercury, its effects remain incurable, and at last prove fatal. Sometimes, however, they are cured by having recourse to other methods. (See chap. x. and xii.)

In cases where this disease is inveterate or ill-treated, it terminates in deep ulcers, particularly in the extremities; and by a corruption of the bones of those parts, mercury, far from being useful, often hastens the death of the patient.

CHAPTER IV.

OF THE PARTICULAR TREATMENT OF SYPHILIS IN
PREGNANT WOMEN.

SOME practitioners hesitate to administer mercury to pregnant women infected with this disease, for fear of producing abortion. This apprehension is unfounded; but supposing for a moment that mercury exposed a pregnant woman to a miscarriage, is it not better, in the eye of a philosopher or legislator, to risk the loss of a being whose existence is precarious and exposed to a thousand risks, rather than allow a disorder to gain ground, which causes such dangerous ravages, and exposes the life of the woman herself? There are many very strong reasons for attempting to cure every pregnant woman with syphilis as soon as possible.

The first is, that by allowing the disease to go on for several months, the mother runs the risk of perishing by it, or having it after her delivery, in the most dangerous and inveterate form. 2°. It is much to be feared that the child may be attacked with it, which would occasion its death soon after birth, or render it

weak and sickly during life. A third consideration, not less important, is, that by neglecting the disorder during pregnancy, if the genital parts are affected, as often happens, the child, though it has escaped the infection in the womb, runs the greatest risk of catching it in its passage through the vagina. 4°. The midwife or accoucheur are exposed not only to get the syphilis, but to be lamed by it for the rest of their days, as I have seen in several very melancholy instances. 5°. The child, if infected, and confided to a healthy nurse, exposes her to it.

Mercurial frictions have been proposed as the best method for pregnant women, but I have found it the most inconvenient of all. Mercurial frictions are extremely fatiguing, if properly done, even to a strong and healthy person; but how much more so to a pregnant woman! In fact, very few pregnant women are able to support such a fatiguing operation, which has probably been recommended by those who never tried it, or never paid sufficient attention to it. As to frictions performed by another person, I think them liable to serious objections.

It seems to me, therefore, more rational to administer the mercurial preparation which suits the constitution best, and the state of health and irritability of the patient. The oxyd of mercury, with liquorice or sugar, jointly with the decoction of sarsaparilla, is, in many cases, the most suitable medicine. It is proper to observe, that the use of warm baths requires moderation and

precautions with pregnant women, because it exposes them to a miscarriage. In all cases, the genital parts must be carefully examined; and if there is a suspicious discharge, or ulcers, the most serious attention must be given to the complete cure of them before the period of delivery. In these cases, as well as in many other syphilitic complaints of women, the purpose is effected by the daily application of mercurial ointment in the vagina, and by wearing constantly during the treatment a bandage, to prevent the ointment from running out, and also to save the linen.

If there be nothing urgent, we may wait till the patient is delivered, and not begin the course till fifteen or twenty days after the delivery.

She should begin by taking one or two warm baths, after which the mercury is administered in frictions, or internally, according to circumstances. Every two or three days a bath is taken for an hour or half an hour, with the precaution of not giving it, or not continuing it with those who are too weak, or with whom it does not agree.

CHAPTER V.

OF SYPHILIS IN CHILDREN, AND ITS TREATMENT.

THE greatest part of children who we are consulted for, as infected with syphilis, have no visible sign of it when born; and those, in whom the symptoms are developed some days after birth, or later, particularly if they appear in the form of inflammation or blennorrhagia in the genital parts, the eyes, and ears, or ulcers in the same parts, or on some other part of the surface of the body, seem in general, rather to have caught the infection during their passage through the vagina. This sort of infection is communicated the more easily, as the entire surface of the body of a new-born child is almost as tender and as irritable as the red surface of certain parts of the body; and is therefore greatly disposed to absorb, or to be affected by the syphilitic virus.

The number of children who catch the infection in this manner is so great, that some modern physicians have begun to doubt whether the syphilitic disease is ever communicated from

the blood of an infected mother to the foetus in the womb : they have equally doubted if, as I have already observed, a father infected with syphilis, without any symptom on the genital parts, or even with a blennorrhagia or ulcers in those parts, could ever propagate the germ of the virus to the child which he begets in that state. In one word, it has been called in question, whether, at least in our times, in Europe, the disease could ever be communicated directly by generation, or, in other words, if it is ever really hereditary.

Doublet, who was physician to an hospital of syphilitic children at Paris, says, " that all children who are born with the syphilitic disease soon die, or if some escape death, they drag on a miserable and languishing existence, which generally does not extend beyond the age of puberty." From this, one would be inclined to think that he had seen many well-ascertained cases of hereditary syphilis. But what he adds afterwards, would render this assertion rather doubtful ; for he says, " Certainly, when a woman infected with syphilis brings forth a child whose skin is faded and wrinkled, of which the epidermis is macerated, or marked with black or livid spots, it is clear that these are symptoms of the syphilitic disease." This appears to me a superficial opinion, and not much better founded than the opinion of those, who seeing a woman brought to bed of a dead child, or half putrid, attribute this state of dissolution to the

syphilitic virus : at least, I do not see in either case any positive characteristic symptom of the disease. Moreover, the evident symptoms of syphilis, which appear on children several days after birth, are, as I have said above, too equivocal to attribute them to a syphilitic infection, either hereditary or contracted in the womb.

But the case which I have mentioned, (chap. i. of this volume,) seems to put the question of hereditary syphilitic disease out of doubt. It proves, I think, in a positive and peremptory manner, that the disease may be, and is sometimes actually communicated during coition, by an infected father, who has the germ of this virus in his blood, even without there being any syphilitic complaint in the genital parts. It is, therefore, very probable that this disease may be communicated just as well from a mother who has the germ of the poison in her body, to the foetus in the womb.

I have since seen another case, in which a mother, appearing to have a constitutional syphilis, that had not been radically cured, brought forth a child evidently affected with the symptoms of this complaint, which it communicated to its nurse, who was in perfect health.

The syphilitic disease, therefore, thus communicated in coition by the father, or else by the mother to the child in the womb, may become hereditary; and in this case, new-born children may sometimes bring with them into the world the evident marks of this disease; or,

what is much more frequent, children are infected during their passage through the vagina. In this case, the symptoms generally appear in the first eight days after birth; this is the *Syphilis connata*; or, lastly, children catch it from their nurses by the nipples, or in kisses. This, in my opinion, is the most common way in which children are infected, particularly in the great towns of Europe, where women of fortune, preferring their convenience and fashionable pleasures to the care of nursing their own children, abandon them to mercenary nurses, who are often infected.

Though there is no part of the body that is not exposed to the ravages of the syphilitic virus; it is particularly the mouth, the eyes, the navel, the anus, and the parts of generation, which are affected in children: and, consequently, the most frequent effects are, aphthæ, ophthalmias, erosion of the cornea, blennorrhagias, and pustules or ulcers on the skin; and, when the disorder has had time to make some progress, ulcers in the extremities, with erosion, and loss of the nails, &c. Of all these symptoms, the corrosive ulcers of the mouth and navel are the most fatal to children.

In whatever manner children may have contracted the disease, if it appears while the child is at the breast, we must remember the wise advice of Hippocrates; *Lactantium cura posita est tota in medicatione nutricum*. The nurse, therefore, must take a mercurial course, and in

this case, it is sometimes best to administer it by frictions. But, in no case, as Doublet has well observed, must we forget that children suffer greatly, and even die when the mercury acts too violently on the nurse; they are tormented with colics and looseness, and scream continually. We must, therefore, be very circumspect in the treatment of mothers and nurses who give suck. It is seldom that more than four ounces of mercurial ointment are necessary: the common beverage is rice-water, or a decoction of pearl barley, which may also be given to the child. When the complaint is serious, the nurse should take at the same time a decoction of sarsaparilla, and her regimen must be very strict. The whole course should last two months and a half, rarely three; but in cases where friction does not agree, or does not produce the desired effect, it is proper to have recourse to the mild mercurial preparations, or else to the submuriate of mercury, prepared by precipitation in Scheele's manner. Some French authors have also recommended in this case the use of the oxymuriate of mercury given with milk. I am no great partizan of this method, particularly in private practice; but in all cases, the use of the mercury must be suspended when the child begins to complain.

The precautions to be taken with infected children, while the nurse takes mercury, are to keep them very clean and dry, particularly in an hospital; to let them sleep alone, and to place

them in a very airy place, where there are not many together; and they must be washed after every stool, in a little bath made on purpose, in which there is always warm water, which must be often changed.

If they have aphthæ in the mouth, we must carefully ascertain if they are really syphilitic; or the effect of the acrimony of the saliva produced by the mercury, or some disorder of the stomach. In the first case, they must be touched every day, two or three times, with a roll of lint or linen dipped in a slight solution of the oxymuriate of mercury in water; in the second and third cases, the *Linctus ad aphthus*, Ph. Syph. is preferable. In syphilitic ulcers in other parts of the body, we may apply the submuriate of mercury in powder. The eye-lids, when inflamed, must be bathed and rubbed twice a day with a little mercurial ointment.

When children are too weak to take the breast, or when the syphilitic ulcers of the mouth render sucking too painful; in the first case they must be fed with cow's, goat's, or ass's milk, till they are strong enough to take the breast of a nurse who has begun a mercurial course; warm baths, with wine in them, contribute to accelerate the improvement of strength. If the ulcers in the angles or interior of the mouth prevent sucking, they must be touched with the solution of oxymuriate of mercury above-mentioned.

If the nipples of the nurse are ulcerated, or

if there be any other impediment to hinder the effects of the mercury from being communicated to the child through the nurse, or if the child should be weaned before the disease is discovered, we must employ a she-goat or ass, a part of the animal's body must be shaved, and mercury rubbed in as with a man, and the milk given to the child. Most children born with syphilis die soon after. There is in Europe, as I have mentioned before, a reigning family, in which no child lived beyond a certain age until the method I have just mentioned was adopted. If the child be more advanced in age, it may take the submuriate of mercury by precipitation, or the oxyde of mercury made with sugar-candy, or else mercurial frictions may be employed. I have been quite astonished to see how well most children bear the submuriate of mercury.

I must observe here, that children are often subject to warts, or other excrescences at the anus, the genitals, and other parts of the body, which are by no means owing to the syphilitic virus, as is commonly supposed; but entirely to the prevailing acidity in the *primæ viæ*. The practitioner who cannot distinguish these excrescences, and who considers them as syphilitic, often misses his point; and by administering a mercurial course without necessity, exposes the health, and even the life of the child, and at the same time often renders the parents unhappy for life.

CHAPTER VI.

OF THE NATURE AND THE ACTION OF THE VARIOUS
PREPARATIONS OF MERCURY ON THE HUMAN BODY.

THE certain, quick, and sometimes astonishing effects of mercury on the complaints produced by the syphilitic virus, have attracted the attention of practitioners ever since the discovery of this valuable remedy.

Various hypotheses have been imagined, in order to explain how the mercury produces these astonishing and beneficial effects. Some authors have thought that it acted merely by its metallic weight; others, that it exerted its power by its stimulating quality, or by the virtue which it has of increasing the various secretions and excretions of the body. It has been maintained of late, that mercury cured syphilitic complaints, by producing a certain alteration or general change in the mass of the blood, by which a state of weakness, and a sort of cachexia, or a certain corruption or putrefaction of the humours is produced, in some respects resembling scurvy, and that salivation was a sort of crisis by which the syphilitic matter was

evacuated. The late Dr. Darwin maintained, that mercury administered in any way, in syphilitic complaints, acts and produces its effects merely by increasing the absorption of the matter from syphilitic ulcers.

I shall not stop to consider the first of these hypotheses, which does not deserve to be refuted. Nor can we be much tempted to insist on the second, if we consider that mercury has no action on the syphilitic virus while in its metallic state, and that two or three grains of a mercurial salt or oxyd carried into the blood, will sometimes make the most violent symptoms of syphilis disappear; that mercury sometimes effects a radical cure of the disease, without a sensible increase in any secretion or excretion, while at other times, after having produced violent and copious evacuations, it leaves the effects of the virus in the same state as before, without curing the patient. As to the third hypothesis, I maintain, that the supposed state of cachexia or putrefaction is by no means necessary to cure the disease, not even its most confirmed state. Syphilis is now often radically cured, without producing any such change in the solids or fluids; and we know at present, that a continued salivation, on which so much stress was formerly laid, is neither necessary, nor even advantageous towards a radical cure of the disease; that a salivation, however well kept up, is far from always curing syphilis; that on the contrary, it often leaves it without curing it; and that if it

is the modern practice to continue the use of mercury, till it begins to attack the salivary glands, it is not in order to produce that state of cachexia, or a crisis by salivation, but only to be certain that it has passed into the blood, and has affected the system.

As to the fourth hypothesis, which gives to the mercury the power of exciting the action of the absorbents, and consequently of increasing the absorption of the virus from syphilitic ulcers, I do not deny it. This theory would explain very well the drying and healing of syphilitic ulcers; but it by no means explains how the mercury thus producing an absorption of the virus, prevents it from acting on the animal economy. It seems, therefore, to me, that in order to produce this last effect, something more is necessary than an increased absorption of the syphilitic virus. Moreover, the mere cicatrization of syphilitic ulcers in the genitals, throat, &c. is by no means a sign of the radical cure of the disease: they are two very different things. We see but too often the effects of the virus re-appearing more violently and more obstinately than ever, after such a treatment, either in the same place, or in some other part of the body.

It has been asserted, moreover, after this theory, that the mercurial oxydes do not act in any particular manner; that the oxydes of different other metals possess the same virtue, and that all chancres may be cured by all the metallic oxydes in general. But though this appears

probable at first sight, in a certain sense ; if we examine the subject a little more deeply, we easily discover the falsehood of this proposition. If we consider with attention the effects of the different metallic oxydes on the human body, what an enormous difference between the effects of the oxydes of lead, zinc, antimony, arsenic, and those of mercury ! and what particularly deserves remark, none of these oxydes, taken internally, ever cured syphilis except the last. As to the effects they produce when applied to chancres, let us consider what is generally understood by the word *chancre*.

If we consult the works of different authors, we find a general confusion respecting this word, and there are practitioners who, considering all ulcers in the genitals as syphilitic, give them all the name of chancre, and of course treat them all by anti-syphilitic medicines. I have shown in the first volume, Chap. xii. the falsity and danger of this hypothesis. I have there detailed the nature of the different sorts of ulcers of the genital parts ; and though I do not deny that there are ulcers which may be cured by the different metallic oxydes, I am convinced by multiplied observations, not at all made by chance, that simple syphilitic ulcers, not complicated, are hardly ever healed but by mercurial oxydes. I could cite numerous experiments, in which I tried in vain the other metallic oxydes for syphilitic ulcers of the genitals which were cured in a few days by the red oxyde, or by the sub-

muriate of mercury ; they prove this proposition to conviction.

From these considerations, I conclude that all these hypotheses which have been advanced to explain the action and effects of mercury on the syphilitic virus, and on the disorders which result from it, are evidently false or unsatisfactory. All that we know on this subject, with any degree of certainty, is, that mercury becomes oxydated if triturated with any viscous fluid: that applied in that state on ulcers or the skin, by means of frictions, it enters by the absorbent vessels into the circulation, and is thus carried to the salivary glands. Hence the taste of metal which is perceived in the mouth. And even if a greater quantity be taken, and gold or silver held in the mouth, they grow white. The mercury, thus carried into those glands, produces a certain irritation, and a greater secretion of saliva.

It was these reasons which made me remark in the first edition of this work (1784), that if we might be allowed to deliver an opinion on this obscure question, chemistry would perhaps afford a more satisfactory and rational theory than any of those that have hitherto been advanced. According to these ideas, I said, that it appeared to me more probable, that mercury in the state of oxyde or salt, acts on the syphilitic virus more by a sort of chemical attraction or affinity, in virtue of which, whenever it meets this virus, it quickly unites with it, neutralises it, and forms with it a compound that has none of the quali-

ties which each of the two substances had before their union ; and the nature of the virus being thus changed or destroyed, its prejudicial effects on the human body must necessarily cease, and the patient finds relief from the moment the combination takes place : and moreover, if the virus has been completely neutralised by a sufficient quantity of this remedy, a radical cure must be the consequence.

According to this theory, it is easier to conceive and explain, not only how a few grains of mercury will sometimes relieve the most violent pains of the bones, but likewise, why mercury, taken internally, heals ulcers, and other syphilitic symptoms in any part of the body ; and *vice versâ*, why the mercurial oxydes or salts, applied in time on primitive or inguinal syphilitic ulcers of the genital parts, heal them radically, and very often in a few days, without the necessity of administering mercury internally. This opinion will appear still more probable, when we consider that to produce the desired effect on the virus affecting the system, the mercury must always be necessarily absorbed into the general mass of the blood ; but that it never cures the symptoms of the syphilitic disease, though absorbed into the mass, if it is not carried in sufficient quantity to the spot in which the virus is exercising its ravages, and unless it unites itself intimately in that part with the virulent matter. It would be also easy to explain in this manner, why mercury often cures the

disease without a sensible increase of the different secretions or excretions, and why, when it causes looseness, immoderate sweats, or a copious salivation, far from destroying the virus, it leaves it very often intact; and in fine, why the syphilitic disease, which seemed to have disappeared during the use of it, often appears again in the same place, and sometimes with greater violence, some weeks or months after the patient has been dismissed from the hospital as cured, and though an enormous quantity of mercury has been given to him.

Though I consider this theory as much more satisfactory than the others that have been advanced on this subject, notwithstanding it does not satisfy me completely; I have therefore only proposed it as a simple conjecture. Nevertheless, a curious and ingenious experiment of the late Mr. Harrison seems to give it a more direct confirmation, and is too remarkable to be omitted. This physician took some of the matter of a syphilitic ulcer; and after having mixed and triturated it with the gummy oxyde of mercury, he attempted to inoculate the syphilis with this matter. The result was, that no infection ensued, while inoculation made with matter taken from the same ulcer, without any mixture, produced an ulcer and other syphilitic symptoms. This insulated fact deserves to be confirmed by exact and repeated experiments; for if it were well ascertained, it would prove unanswerably, that there is a reciprocal action

and a chemical combination between the syphilitic virus and the mercury.

But here I must add that it has been since observed, that mercury, in the metallic state, seems to have little or no action on the human body, or the syphilitic disease; that it never acts on this disease, but in the state of oxyde; and that its energy on the human body seems to be in proportion to the degree of oxydation which it has undergone in the preparation which is employed. The red and yellow oxydes of mercury, the submuriate, the nitrate, and above all the oxymuriate of mercury, afford striking examples. But the discoveries of the French chemists have taught us, that mercury in its state of oxyde is no longer a simple body, but a compound of oxygen and metal. It remains, therefore, to determine whether the effects of mercurial oxydes on the human body in general, and on the syphilitic virus in particular, are owing to the mercury, or to the substance we call oxygen; that is to say, if it be the mercury itself, or the oxygen which acts on the virus, when the different mercurial preparations are administered, or rather, if it is to the union of these two principles acting together, that the effect is to be attributed. The last proposition appears to me the most probable, and I shall hereafter give the reasons which make me prefer it.

From all that has been said I shall draw the following conclusions:

1°. Mercury seems to have no action on the human body taken in a metallic state.

2°. It only acts on the body in general, and on the syphilitic disease in particular, when combined with more or less oxygen.

3°. It seems to act on the body, and on the syphilitic virus, with an energy proportioned to the quantity of oxygen with which it is combined; and its action is greater or less according to the state of its oxydation.

4°. In consequence of the principle laid down in the preceding article, the preparation in which the oxygen is the weakest, and in the least abundant combination with mercury, as the grey oxyde, should be the weakest in its action, and it must require a much greater quantity to produce a sensible effect on the virus and on the disease, than if mercurial preparations were employed, in which the oxydation is more perfect, and where the metal is combined with a greater dose of oxygen. According to this law, the action of the grey oxyde of mercury would be the least powerful; next, the red and yellow oxydes; and among the mercurial salts, after the submuriate, the acetate, and the tartrate of mercury, the most powerful would be, first the nitrate of mercury, and lastly the oxymuriate: a scale of graduation which has been confirmed by exact observations.

5°. Mercury does not act in general, like bark, opium, and many other medicines, merely on the stomach, but on the whole system; and

if it acts particularly on the stomach or bowels, as happens sometimes, and to certain persons, it produces no effect on the syphilitic disease. To be really efficacious, it must be absorbed into the mass of the blood, whether the absorption takes place in the stomach, or intestinal canal, or by application to the skin. Mercury administered internally, or by frictions externally, always tends to increase the action of the heart, and the arterial system; it evidently produces a general irritation, often attended with inflammatory symptoms; and Dr. *Blackall* has lately observed, that in the dropsies which arise after the use of it, the urine of the patient, exposed to heat, always presents the character of coagulation, and that salivation aggravates these complaints considerably. The submuriate of mercury often makes, not only the serum, but the red part of the blood pass into the urine. The blood of persons under a mercurial course often forms a lardacious crust.

6°. Mercury, like all other active medicines, acts differently on different temperaments. When it has entered the blood, it attacks particularly the salivary glands, and produces in some persons sooner, in others later, a more or less abundant secretion of saliva. A physician of my acquaintance thinks he has observed that mercury, triturated with camphor, is much more active and powerful in its effects on the body. A fact worth ascertaining.

7°. In the experiments of Fourcroy and Vau-

quelin, the oxydes and oxymuriate of mercury being mixed with the albuminous part of the blood, it became thick and coagulated, and the mercury fell to the bottom of the vessel, in the form of a blackish-grey powder, that is, in part reduced.

8°. Practical observations show that a similar decomposition really takes place in the living animal body, when mercury is administered in any way, or in any preparation whatever; for we observe that watches, rings, and other gold trinkets, which are worn during the use of mercury, begin to whiten from the moment that the mercury, having entered the blood, begins to go off by perspiration or the saliva. This fact is particularly confirmed by the extravasation of mercury in a metallic form, so often seen in the dissection of dead bodies, as I shall show directly. The same decomposition is visible when mercurial oxydes are applied to external ulcers.

9°. Many respectable authors have given the result of numerous anatomical dissections of persons who had died after having taken a considerable quantity of mercury for syphilis; they found that mercury was often deposited from the mass of the blood, in a *metallic form*, in the large cavities of the body, as the belly, breast, brain, bones, &c. Those who wish to know the authors who have stated this fact, may consult, in particular, the works of *Musa di Brasavola*, *Bonnet*, *Schenkius*, and above all, *Fallopious* and *Fernel*. *Panarolus* (*Ar-*

cana Fascic. duo) relates, that in dissecting a body, globules of mercury were found in the *corpus callosum* of the brain; and some years ago, when the bodies were removed from the cemetery of the Innocents at Paris, globules of mercury were found in several skulls, in considerable quantity; which proves at the same time how imprudently mercurial frictions were formerly employed. There is, in particular, a very remarkable observation, which I have read somewhere, though I do not recollect at this moment the author's name; where, on dissection, the lungs were found full of little tubercles, in each of which was a little globule of mercury, the patient having taken it in large doses before his death. In this case, the mercurial salt or oxyde being decomposed in the mass of blood, the mercury resumed its metallic state, and was infiltrated by a kind of injection, or extravasation, into the fixed vesicles of the lungs; and I am fully persuaded, that in many cases, the violent pains of the head, bones, or muscles, arise from a similar extravasation of the mercury in a metallic form, which irritates the parts like an extraneous body, particularly when interposed between the sheaths of the muscles and tendons. Perceiving that mercury, administered internally, or by frictions to excess, or without necessary precautions, often produces the most serious complaints, pains in different parts of the body, consumption, and even death, I suspect, that in these cases, the mercury sometimes combines

with the phosphoric, or some other acid, which it finds in the body, and then directing itself on the lungs, or other organs, produces these pernicious effects.

From all these different considerations, it appears that mercury maintains its old and first rank in the cure of all syphilitic complaints, but that it requires to be combined with oxygen to act with energy on the human body in general, and on the syphilitic virus or syphilitic disease in particular; that mercury absorbed and carried into the mass of the blood, in the form of oxyde, or mercurial salt, comes in contact with the virus itself, or with the matter or humour, with which the virus is united or combined, changes its nature *ipso facto*, destroys it, or renders it inactive. It appears, that there is then a new composition and decomposition of principles, and that the mercury, losing its oxygen, recovers by this means its metallic state, and is thrown, in that form, like an extraneous body, out of the mass of the blood, by perspiration, or some other excretion, but that it is divided into globules infinitely small, and consequently invisible to our sight.

10°. From these observations and reflections, it appears, that the conclusion was too precipitate, that all the effects of mercury were entirely owing to the oxygen alone, of which mercury was only the vehicle, and which it soon got rid of in the body. It seems on the contrary, in our climates at least, that something more than simple oxygen is necessary for a sure and radical

cure of syphilis, and that the mercury has a considerable share in the effects produced by the different mercurial preparations; that the good effects of the oxygen must be attributed to its combination with mercury, to which we must always have recourse, at least in the climates situated above the 45th degree of latitude, in order to destroy the virus certainly and entirely in all its modifications; that although the mercurial preparations seem to act on the body in proportion to their oxydation, it is not so well ascertained that they act in general in the same proportion on the syphilitic virus. In fact, I have many observations to prove that the oxymuriate of mercury, for example, though it relieves in general very speedily the most violent symptoms, does not always cure the disease thoroughly, but on the contrary, often leaves the complaint without a radical cure, though it has been continued a very long time; and that consequently, oxygenated medicines without mercury are uncertain remedies, and that to obtain a radical cure of the various symptoms of the disease, mercury holds the first place, at least in the cold and wet climates of Europe.

CHAPTER VII.

OF THE DIFFERENT WAYS OF APPLYING MERCURY EXTERNALLY, IN ORDER TO MAKE IT ACT UPON THE SYSTEM.

I. — OF MERCURIAL FRICTIONS.

AMONG the different methods hitherto discovered for the treatment of syphilis, one of the most efficacious, and most certain, is mercurial frictions, and which, in several cases, is the only one by which the disease can be radically cured. It has notwithstanding its inconveniences, and in order to produce the desired effect in the speediest manner with this method, it requires not only great judgment and attention on the part of the practitioner, but also a very strict compliance, and a most exact observation of regimen by the patient; though in fact, we might say the same of the employment of all mercurial preparations.

Such is the difference of constitutions, that some persons will be more affected by a very small number of frictions, than others who appear perfectly alike, by twenty or thirty: and if they be continued to the former, in the view of increasing their good effects, we run the risk on

the contrary of producing very disagreeable symptoms; such as salivation, vertigoes, fever, trembling of the extremities, and violent pains in the joints.

When mercurial frictions agree, and act as they ought, this method is attended with no bad symptom; the patient is cured without suffering much during the time of the frictions, and without finding himself weakened afterwards. Many persons are relieved to a certain point by five or six frictions, while others require fourteen or fifteen to produce the same effect.

Though mercurial frictions are an external application, still the action of the mercury, which results from this operation, is internal, and consequently must be considered like the other mercurial preparations administered internally, to act on the mass of the blood and the system in general.

Frictions may be administered, 1°. By means of the mercurial ointment, prepared with hog's lard, or the butter of the cacao nut: this is the most common method, and indeed the only one generally known. (See Ph. Syph. *Unguentum hydrargyri griseo-nigrum*.) 2°. With mercury precipitated from its nitric solution, by means of soap. (See *Unguentum hydrargyri extemporaneum*.) 3°. With mercury triturated, and reduced to an oxyde by means of a vegetable gum or mucilage. 4°. With the submuriate of mercury in powder, with the saliva, or fat, in the form of ointment.

In order to prevent, as far as depends on the practitioner, pustules and other inconveniences which often proceed from mercurial frictions, the ointment in the first place must be well prepared; in the second place, the parts on which the frictions are to be made, must be shaved, and must not be rubbed too hard in the beginning: for the pustules on the skin seem sometimes to proceed from the hair being violently pulled in opposite directions. We should moreover take care, 1°. to choose a spot where there is the greatest number of absorbent vessels; as the inferior extremities, and particularly the soles of the feet, the inside of the thighs, legs, and arms; 2°. to prepare the part that the absorption of the mercury may be as complete as possible; 3°. to dispose the surface of the body to transmit the metal easily through the pores of the skin, after it has produced the desired effects in the system, and thus to prevent salivation and looseness, and hinder it from remaining in any of the bones or cavities of the body; of which the history of medicine affords many examples.

To fulfil these different views, it is always proper to prescribe a purgative before beginning the frictions, and to place the patient for half an hour or an hour in a bath heated to 96° or 98° of Fahrenheit. After having been in it a quarter of an hour, the body must be rubbed all over with a flesh brush, or a piece of flannel and soap, to clean the skin, and prepare it for the double

purpose we have just mentioned. These precautions, if convenient, must be taken the day before, or the day the frictions begin, and the bath must be repeated every two or three days, during the whole time they are continued.

If the frictions are to be made on the soles of the feet, they must be put in a warm bath for an hour, and afterwards rubbed with pumice-stone, to take off all callosities.

The same evening, or the day after the bath, the patient must begin the frictions, before he goes to bed, by rubbing into the soles of the feet, or the internal or external part of the legs or thighs, a drachm or sixty grains of the mercurial ointment prepared with the precautions we have mentioned, chap. xx. and xxi. The friction must be performed by the fire-side in winter; and he must continue to rub gently, at least for half an hour, or an hour. The part must then be covered with linen fastened by a bandage, or perhaps better with a sheet of paper, or else drawers or a pair of stockings may be put on, if the friction has been made in the leg or foot. The same pieces of linen may serve during the whole course; as the only use of them is to prevent the shirt or sheets from being soiled by the ointment. To clean linen spotted by mercurial ointment, see the method recommended by Vauquelin, chap. xx. under the article *Mercurial Ointment*.

Before each new friction, the part must be well cleaned, and the blackness and grease well

taken off. It is always better for the patient to perform the frictions himself; but as it might be too fatiguing for fat persons or females, a servant may be taught to do it with a glove made of pig's bladder. I would advise no body to perform this service for another without such a glove, because I have seen examples of salivation and shaking of the arm in persons who had been in the habit of performing mercurial frictions for others, with the naked hand. Moreover, one is never sure what quantity of mercury is introduced into the body, when a part is absorbed by the hand of another. After the first friction, we must observe attentively whether the mercury produces any derangement in the body; and if that happens, we must wait two days, taking care that the patient observes an exact regimen, is warmly clothed, and keeps his apartment, particularly if it be a cold climate, or a bad season.

If the patient perceives no disagreeable symptoms, he must make the next friction on the second day after, in the same manner. He must again omit it the following day; and then if there be no bad effect, the frictions may be continued once or twice every day, without interruption, unless some accident happens. In this case, it must be remedied as soon as possible. In all cases, the friction must be made every second or third day, on a different part, to avoid the irritation of the skin, and prevent pustules. If after five or six frictions, it appears that the constitution of the patient bears the mercury

well, that he has no fever, diarrhoea, salivation, nor immoderate sweats, one or even two drachms of a mercurial ointment may be employed in each rubbing, particularly if the symptoms require immediate relief, or are obstinate. In this case, it will be well to divide the ointment into two portions, and rub on each leg; or one leg may be rubbed in the morning, and the other in the evening. Before each rubbing, the grease of the preceding one should be taken off with a knife, that the new ointment may be absorbed more easily, and that the skin may not be irritated by the acrimony which the grease contracts, and which occasions very painful pimples.

In this state of things, if the season be fine, or even if it be not extremely cold or wet, the patient may go out every day during the frictions, provided he is warmly clothed, and avoids the cold air, particularly at night; but he should take great care not to check the perspiration; and of course, if the weather be cold or damp, he had better remain at home in a room moderately warm, and endeavour as much as possible not to feel cold. In bad weather, he must wear worsted stockings, flannel drawers and shirt, next his skin, or according to circumstances above his shirt.

During the whole time of the frictions, the warm bath must be repeated, if possible, once or twice a-week, and be continued till the patient is perfectly recovered. This will be after thirty

or thirty-five frictions, if only the soft parts have been affected; but if it is a confirmed syphilis, or of old date, so that the bones are affected, fifty, sixty, or even seventy frictions are necessary for a complete and radical cure. This, of course, must vary according to the condition and constitution of the patient.

I shall here make a very essential observation both for the patient and the physician, and which is applicable to the use of mercury in general, both externally and internally; it is, that the mere cessation of the symptoms must never be considered as a certain proof of a radical cure. The patient should be told in the beginning, particularly women, that the relief of the pains and the diminution of the symptoms of syphilis are very different from the total destruction of the virus, and the radical cure of the disease. The first effects may sometimes be produced in ten or fifteen days, by means of a very small quantity of mercury, or a small number of frictions, instead of which it sometimes requires as many months to produce a radical cure. The same thing sometimes happens, in this respect, when the frictions or internal use of mercury are disused as soon, or soon after the symptoms disappear, as when bark is given up in intermittent fevers, as soon as the fever is abated. It soon returns, though perhaps in a different form; while if the bark is continued some time longer, we are sure of a perfect cure, and are in no danger of a relapse.

It is necessary, therefore, for the interest of the patient, to continue the frictions sometimes for fifteen or twenty, or at least ten days after the symptoms have disappeared.

When the patient, during the frictions, (or while he takes mercury in any other way,) perceives that his gums begin to swell, that his breath becomes offensive, and his throat feels sore ; that he spits oftener than usual, or ulcers appear in his mouth, he must diminish the dose, or suspend the use of it entirely until these symptoms diminish or go off ; and he may then resume it. But I think it is advisable to push the frictions rather briskly at first, if the patient can support it until the mouth is a little affected ; because we are then sure, that they have produced their proper effect, and that the mercury is absorbed into the system.

We must here observe, that there are persons whose skin seems incapable of absorbing mercury ; and others, whose skin cannot bear either mercurial frictions, or the application of any ointment or fat substance ; in these cases, we must have recourse to the internal use of mercury.

Most patients experience relief, as I have said, after a few frictions ; but there are some, particularly those who have the skin or bones affected, or who have a very inveterate sore throat, in whom no remission of the symptoms is observed until after fifteen or twenty frictions. And sometimes in this state of the disease, as

much as seventeen or eighteen ounces of mercurial ointment are necessary to perform a complete cure.

II. — OF MERCURIAL BATHS.

SOME modern physicians have recommended the application or administration of mercury in the form of baths or glysters, to cure syphilis. Mercury may certainly be employed in this way, and perhaps in some cases with advantage ; but no enlightened practitioner will depend on either of these methods to produce a radical cure. — The oxymuriate of mercury dissolved in hot water, has been principally used for this purpose ; and as this salt is but little soluble in water, a certain quantity of muriate of ammonia, or muriate of soda, has been added, which makes it much more soluble. The combination of mercurial baths or glysters, with a mercurial course, may be very useful in certain cases ; and the nitric solution of mercury may also be used for this purpose. I must, however, again observe, that the repeated use of baths with the oxymuriate of mercury, and perhaps with the nitrate of mercury also, are apt to alter the whiteness of the skin ; which of course renders these baths less convenient, particularly for women who wish to preserve the beauty of their skin ; and on all accounts, it would not be prudent in any case

to depend on this application alone for the cure of syphilis.

III. — OF MERCURIAL GLYSTERS.

If it be thought proper to make use of mercurial glysters, one or two grains of oxymuriate or nitrate of mercury must be dissolved in ten or twelve ounces of distilled water, and one or two of these glysters must be given every day.

IV. — OF MERCURIAL FUMIGATIONS.

THOUGH mercurial fumigations are now generally neglected by physicians in the cure of syphilis, yet they afford one of the most efficacious means in several syphilitic complaints, particularly in the ozæna and caries of the bones of the nose, or sphenoidal bone at the basis of the skull, as also for some rebellious ulcers, and stubborn condylomata. Nothing to me is a stronger proof of the immediate or chemical action of mercury on the virus, than the almost instantaneous effect of mercurial fumigations on syphilitic ulcers. — For this purpose, one or two drachms of a mercurial oxyde, or of the red sulphuret of mercury, (artificial cinnabar,) are thrown upon live coals, and the smoke which rises is directed on the affected part, by means

of a glass funnel, or an iron pipe made of a single piece without soldering, for a quarter of an hour every day, or every other day, covering at the same time the rest of the face and the eyes with a napkin.

CHAPTER VIII.

OF PTYALISM, OR SALIVATION, OCCASIONED BY THE USE
OF MERCURY.

(*Sialorrhagia Syst. Nosol. Meth.*)

IT is a fact generally known, that one of the most regular effects of mercury on the human body, is an increased secretion in the salivary glands of the mouth and throat, from which proceeds the disagreeable symptom called *ptyalism*, or *salivation*.

Some patients, particularly women, or those who have taken mercury for former complaints, seem more subject to it, though they have taken but a small dose. The salivation is in these cases sometimes very violent, and lasts several weeks or months without a possibility of stopping it. *

* We know no medicine in Europe but mercury, which taken internally will produce salivation. But *Marsden*, in his Description of Sumatra, informs us, that the decoction of the China root (*Smilax China*), which the natives use for the cure of syphilis, often produces a salivation; which I have never seen in Europe from that medicine.

It was long a subject of dispute whether a confirmed syphilis could be radically cured without salivation; and though perhaps there is not now a single physician who doubts the possibility of a radical cure without that evacuation, there is still a great number who give mercury to excite a salivation, not only for the cure of syphilis, but even in some countries for a blennorrhagia, or what they call a gonorrhœa. This mode of treatment still prevails very much in private practice, as well as in hospitals, particularly in France.

In England and Germany it is almost entirely confined to hospitals, in which, unfortunately, almost every thing is done by routine.

I shall now examine how far this practice may be justified of salivating patients, either for curing syphilis or blennorrhagia.

Many authors have imagined, and Dr. *Freind*, with several modern writers, has maintained, that salivation is not only necessary for a radical cure, but that the more abundant the salivation, the more certain is the cure; above all, when the bones are affected.

I must confess, that experience has always shown me the contrary. Among a vast number of patients differing in their age and constitution, and the climate they inhabited, whom I have had occasion to treat, I have never met with one who required salivation; and I have constantly observed, on the contrary, that the greater the salivation, the less certain was the

cure of syphilis. This is so true, that even the modern partisans of salivation acknowledge unanimously, that a strong salivation is injurious, and that only a slight one should be excited.

If I could agree to this last point, I would still observe, that in many cases, it is a thing more easy to say than execute ; that is, to stop, or even to moderate a salivation once begun. It is often entirely out of our power ; and a specific remedy for this purpose is still a desideratum in medicine. We have so little means of accomplishing it, that I have seen patients more than once die of a salivation, without any possibility of stopping or diminishing it by any remedy whatever. I have seen others, who did not sink under it entirely, languish for months and years from its effects, and several who have died of consumption occasioned by such treatment.

Moreover, salivation is very painful to the patient, by forcing him to spit night and day, and filling his room with a very disagreeable smell ; it has, moreover, the disadvantage of making the teeth fall out, and of producing painful ulcers in the mouth, throat, &c. ; and if they are not attended to in time, or are taken for syphilis, and the use of mercury is persisted in, they often become more dangerous than the disease itself.

It may seem, therefore, surprising, that such a dangerous practice as that of salivation

should still be kept up in hospitals. But I have heard the three following reasons alleged in its favour.

1°. There is the advantage of keeping patients shut up in their room, and preventing them from getting a fresh infection before they are cured of the first.

2°. They get rid of these poor patients in a month or six weeks, and have room for others, whom they treat and send off in the same way.

3°. The prejudices of the people which are in favour of this plan are satisfied; who, in fact, imagine that they cannot be radically cured without a good and long salivation.

Such reasons appear to me quite insufficient. Other methods might be found out to prevent the patients getting a fresh infection. And as to the second point, I think it is more rational and more humane to cure a less number of patients radically, and without salivation, even supposing more time to be necessary, than to relieve and palliate the sufferings of a great number in less time, by an uncertain, disagreeable, and sometimes dangerous method. We may add, that daily experience shows, that a great many who appear to have been cured by salivation, often return to the hospital very soon, with the same symptoms as before, or are obliged to apply elsewhere, with solemn protestations that they have caught no new infection. The third reason is the worst of all.

It is my opinion, that no physician of principle should ever give way to the prejudices of his patients if he considers them hurtful, or if he knows that a contrary method will cure them with more certainty and less inconvenience. Moreover, it is easy for a practitioner, who has won the confidence of his patients, to show them the folly of such prejudices.

Salivation, therefore, being subject to inconveniences in all circumstances, and very dangerous in irritable or weak constitutions, I think it is most prudent always to avoid it ; or, if it be begun, to moderate and dispel it as soon as possible.

But, however much I condemn salivation when kept up as a critical or salutary evacuation for the cure of this disease, I still wish, in all cases, to see the mouth slightly affected during a mercurial course, because it affords a certain proof that the mercury has penetrated into the system, and that the saliva, or the mucilaginous humours, are impregnated with it.

It is also to be observed, that in general a salivation is more easily brought on by the use of acrid mercurial preparations, and in a cold and wet climate or season ; that some constitutions are more subject to it than others ; and that those in particular who have previously taken mercury, are often apt to fall into a salivation with very small doses of mercury, though in their former illness they did not experience that effect.

Many medicines have been recommended to be taken separately, or combined with mercury, to prevent its affecting the mouth, as well as to stop a salivation. These are principally common sulphur, and the yellow hydro-sulphuret of antimony.

Mercury thus combined is in fact less apt to produce salivation; notwithstanding *Dr. Heberden*, in his *Commentarii de Historiâ et Curatione Morborum*, 8vo. Lond., has mentioned a case, in which mercury, combined with sulphur, and employed for forty days, excited a salivation which lasted three years, notwithstanding various medicines were used to stop it.

It has also been advised to combine the mercury with bark; but the latter decomposes the mercurial oxydes and salts, and renders them wholly inactive, and incapable of curing syphilis.

I shall now state the most efficacious means of preventing salivation, and shall recapitulate them here in a few words. 1°. The greatest attention must be given to the choice of the mercury, with respect to its preparation and dose. 2°. Cold and moist air, particularly at night, must be avoided. 3°. Warm clothing, and in bad weather, and in cold and damp climates, flannel next the skin. 4°. A frequent use of warm baths, and diaphoretic or diuretic decoctions taken internally along with the mercury. 5°. Rooms too hot, and close air must be avoided. 6°. The head and neck must be

well covered both night and day. 7°. As soon as the teeth and breath are affected, leave off the mercury for some days. 8°. Keep the bowels open. 9°. If the patient is not of a strong or sanguineous constitution, a nourishing diet must be prescribed, with a moderate use of wine, which is preferable to a severe regimen. Those who are accustomed to smoke had better leave it off during a mercurial course.

If notwithstanding these precautions, a salivation comes on and grows violent, it is prudent to discontinue the mercury, and make the patient stay at home, in a room moderately warm, if the weather be cold. If his strength and constitution permit, he may take a mild laxative. But in general we must be very circumspect with purgatives, as in this case they often produce diarrhœas, which it is very difficult to stop, and which may even have dangerous consequences.* It is better, therefore, in general, to give glysters, and to make the patient drink barley water, or some other mucilaginous decoction. If the ulcers of the mouth produced by

* It is an opinion generally received, that when a salivation is begun, it may be stopped by administering immediately one or two purgatives; but *Dr. G. Fordyce*, having in St. Thomas's Hospital given mercury to forty patients of about the same age, and nearly of the same constitution, so as to produce salivation; gave twenty of them a purgative, and left the others to themselves; he found, *ceteris paribus*, that the salivation stopped sooner with those who had taken no medicine, than with the others who had the purgative.

salivation are very painful, they must be touched three or four times a day with a solution of borax; and he must gargle frequently with lime-water, or some mucilaginous decoction, with a little borax.

If the strength of the patient and circumstances permit, he must be put every evening in a warm bath for five or six days together, and have his whole body rubbed with a flesh brush or flannel; and on leaving the bath, must be dressed in flannel. If the inflammatory symptoms are violent, bleeding is sometimes necessary; and in all cases, he must observe a light and farinaceous diet. But if his strength is exhausted, a good nourishing regimen, with an aqueous or vinous (red wine) infusion of bark, and wholesome country air, are certainly the best remedies. When the irritation of the salivary glands is very great, and the salivation continues obstinate, an astringent gargle may be used with advantage, made of a decoction of bark, or the tormentilla root, or oak, or white willow bark, with a little alum, or else a solution of the extract of green walnut-shells in cold water, five or six times a day; but after all, great care must be taken not to stop the salivation all at once. *Dr. Sylvester* mentions a case (*Edinb. Essays*) of violent pains in the joints, of a fixed insupportable head-ach, and obstinate vomitings coming on; and continuing very long after an imprudent suppression of salivation. If there are violent

symptoms of inflammation, sometimes bleeding in the arm is the most efficacious remedy to stop salivation.

If the salivation is very great, and the patient has swallowed much saliva, it is often very useful, in order to avoid serious inconveniences, and particularly the dysentery, to prescribe an emetic, to counteract with energy the excess of the mercurial action; and to give internally from ten to thirty grains of sulphuret of lime every morning, or, according to circumstances, three times a day, swallowing immediately after it a small glass of lemonade; or else a decoction of bark, and the sulphur or hydro-sulphuret of antimony.

In an inveterate ptyalism, the tincture of cantharides given internally, and a blister, seton, or cautery in the neck, or the ammoniacal liniment applied to the throat, sometimes produce good effects: and in desperate cases, one might try cold water, thrown on the head or face of the patient, while the rest of the body is in a warm bath. In some obstinate cases, hot or cold sea-water baths have been found very useful.

I have been informed, that in an obstinate ptyalism, two scruples of the root of the *Dorstenia Contrayerva* in powder were given with success, twice a day. Linnæus, in his (*Flora Suecica*), mentions a ptyalism excited by an imprudent use of mercury, which lasted more than a year, and was completely cured in a short time,

by the simple aqueous infusion of the leaves of the *Marrubium vulgare*.

In all cases of obstinate ptyalism, we should carefully examine if there is not a caries of the bones of the mouth, which keeps up this evacuation.

If after the salivation has been thus stopped, the patient finds himself in a state of exhaustion, the best remedies are a nourishing diet, and strengthening medicines, such as bark, iron, and principally the Spa or Pyrmont waters. At the same time, if circumstances will permit, I consider sea-bathing as an excellent strengthener for weak and relaxed constitutions, particularly after a mercurial treatment.

In all cases where there are symptoms of great irritation, it is proper to give opium internally.

An important point, the neglect of which I have more than once seen followed by the most dreadful and sometimes irreparable consequences, is to cleanse the mouth with the greatest attention, and particularly the ulcers which often arise in this case from the acrimony of the saliva. In some patients these ulcers very soon corrode the soft parts, and even the neighbouring bones. The best remedy for this, according to *Dr. Sprengel* of Halle, is the decoction of green walnut-shells, frequently applied as a lotion or gargle. I have also used with success a solution of borax, or a solution of three or four grains of sulphate of copper or alum in an ounce of water alone, or mixed with a little tincture of myrrh and

honey, applied five or six times a day, on the ulcers, by means of a camel-hair pencil. One part of *Argentum nitratum* infused in a thousand parts of water has also been recommended for the same purpose.

It has been observed, that salivation has sometimes been kept up by the mere exfoliation of the *processus alveolaris*: it is clear, that in this case all application of remedies becomes useless, and that we must wait till the exfoliation is completed: the ptyalism then diminishes, and at last ceases of itself.

It is a very remarkable fact, that mercury sometimes produces a salivation several months after the complete cure of syphilis, while it had not even affected the mouth during the course. The occasional causes of this circumstance seem to be principally cold and damp.

Another fact, equally worthy of remark is, that the nature of the saliva seems so much changed, in some cases, by the use of mercury, that it will no longer contribute to digestion as it does naturally, and as it had done before; for some patients who have undergone one, and particularly several mercurial courses, are subject to frequent indigestions and flatulencies, or to colics, which they never felt before using the mercury. Bark, and the ferruginous and sulphureous mineral waters, are the most efficacious remedies for these complaints.

CHAPTER IX.

OF COMPLICATED SYPHILITIC COMPLAINTS.

THE syphilitic disease is sometimes combined or complicated with other disorders, particularly the following: 1°. scurvy; 2°. the herpetic virus; 3°. the itch; 4°. leprosy; 5°. elephantiasis; 6°. scrofula; 7°. rheumatism; 8°. gout; 9°. sthenic, or asthenic fever; 10°. certain nervous affections.

It is particularly in complicated syphilitic complaints that patients have the greatest need of a skilful and judicious physician. These cases often require great courage and perseverance. Sometimes a mixt method and regimen are proper; on other occasions, it is absolutely necessary to palliate, or even to cure radically the other disease, before we meddle with syphilis. More frequently still, an alternating plan is advisable, that is, to begin by giving remedies for the most urgent and most dangerous of the complaints; and when that is subdued, to administer medicines for the other. I have seen cases, where it was necessary to give mercury

first ; then to discontinue it for a strengthening or other regimen, and after some time to return to the use of mercury ; to discontinue it again, and resume the strengthening and antiscorbutic remedies, &c. ; and thus alternately three or four times before the patient was radically cured.

The syphilis, joined with scurvy, is a very dangerous disorder, and often proves fatal. Some enlightened physicians are of opinion, that the violence of the syphilitic disease, on its first appearance in Europe, was owing to its being complicated with scurvy, elephantiasis, &c., which rendered it so obstinate, and so often fatal. When this complication exists, we must always begin by relieving the scurvy, by prescribing juices, and other antiscorbutic medicines, and frequently a strengthening diet and remedies, and then employ mercury. The latter, if administered before the scurvy is radically cured, becomes a poison for such patients. Oxygenated medicines deserve a trial in the complication of syphilis and scurvy.

Syphilis, joined with the leprosy, requires warm baths, the decoction of green walnut-shells, and antimonials ; or, according to *Bjoerlunt* and *Odhelius*, the infusion of *ledum palustre*. See Memoirs of the Academy of Stockholm.

Syphilis, complicated with elephantiasis, requires the use of the decoctions of guaiacum, sassafras, or sarsaparilla, with the sulphuret of antimony, or the oxyde of arsenic, as the Hindoo

physicians use it. Mercury is a poison in elephantiasis ; which, as well as the white leprosy, is constantly exasperated by it, till it becomes fatal. It must, therefore, be let alone, as *Schilling* has well observed, however urgent the syphilitic symptoms may be. We have remarked, in the preceding chapter, that, according to the observations of the Brahmins, an inveterate syphilis, or treated improperly and repeatedly with mercury in hot climates, often degenerates into elephantiasis.

The syphilitic virus, complicated with that called *herpetic*, often seems to yield to the same remedies as we have just recommended for leprosy. Oxygenated preparations, internally and externally, are also deserving of trial in these circumstances.

When syphilis is complicated with scrofula, mercury is dangerous, and even sometimes proves fatal, whatever some modern writers may say to the contrary. Sea-bathing, and the use of sea-water internally, are useful in scrofula ; or, still better, instead of sea-water internally, the alkalies, or the *muriate of lime*, every day, from six grains to a drachm in water ; and externally, a saturated solution of it in water. In some cases, hemlock with bark has succeeded, or a decoction of sarsaparilla and mezereon, with the carbonate of soda. The late *Dr. Crawford* found, that the *muriate of barytes* was one of the most efficacious medicines in several cases of scrofula.

When patients cannot conveniently procure sea-water baths, an artificial water, exactly like it, may be prepared, by dissolving in fifty pounds of soft water, ten ounces of muriate of soda, ten drachms of muriate of magnesia, two ounces of muriate of lime, and six drachms of sulphate of soda, with the same quantity of sulphate of magnesia.

Syphilis combined with rheumatic pains requires powerful sudorifics, as Dover's powder, (see Ph. Syph.): the antimonial preparations, the tincture of guaiacum, blisters, warm or vapour baths, and a soft brush, give great relief in this complication of syphilis and rheumatism, particularly when a strong decoction of sarsaparilla is added, or of guaiacum with the mercurial sulphuret of antimony.

Persons afflicted with syphilis, and at the same time subject to the gout, must be very prudent and circumspect in the use of mercury. Mercury often seems to develope the gout, and produce its real symptoms; so that we might call it a mercurial gout. Mr. *Molwick*, of Stuttgart, after having tried sulphureous baths in this case, without success, which occasioned much pain, employed vapour baths successfully, applied twice a day to the affected parts, particularly the feet.—On an ounce or two of sulphuret of lime, he pours several quarts of water, and after having placed the foot conveniently for receiving the vapour, he adds a few glasses

of vinegar, and immediately covers the vessel and the limb with great care.

The most celebrated practitioners have observed, that persons of both sexes who are seized with an inflammatory or asthenic fever during the time they are afflicted with a blennorrhagia, or ulcers on the genitals, often die, particularly in hospitals, of a mortification in those parts.

The cure of syphilis, when complicated with nervous affections, or with a great degree of irritability and sensibility of the whole system, or of the ulcerated parts, requires a profound knowledge of the animal economy. Mercury, if administered without great precautions, is very often hurtful to such patients; this morbid irritability should be corrected by sedatives, or strengthening baths, before we risk the mercurial preparations.

CHAPTER X.

OF DISGUISED SYPHILITIC COMPLAINTS.

(Morbi venerei larvati. auct.)

THE principal complaints which assume this appearance are,

- 1°. Ulcers of the mouth and tongue.
- 2°. Superficial ulcers of the tonsils, the soft palate and pharynx, or back of the mouth.
- 3°. A dryness and swelling of the pituitary membrane of the nose, impeding the breathing by the nostrils; or crusts, which are formed from time to time in the nose.
- 4°. Violent and often dreadful head-achs.
- 5°. Violent pains in different parts of the body often resembling rheumatism or gout.
- 6°. Vague pains in the bones.
- 7°. A general emaciation of the body, without an apparent cause; or else, with a dry or moist cough, and a hectic fever.
- 8°. Impotence, or no venereal desire, without any evident cause.
- 9°. Dysuria.
- 10°. Lassitude, or general weakness, want of sleep, or not refreshing.

11°. A sickly complexion, and hollow eyes, with a sunk and harassed countenance.

There are persons, who having been affected with syphilitic complaints of which they appeared to be cured for whole months and even years, have grown thin, begun to cough, and been attacked with hectic fever, and other symptoms of consumption (*atrophia* or *phthisis pulmonalis*). This is often attributed to other causes, and remedies are prescribed commonly without success. These complaints often proceed from the syphilitic virus latent in the body: at other times, however, such symptoms are owing to quack medicines, or ill-chosen mercurial preparations, or given without necessary precaution, particularly the corrosive sublimate.

I have seen several examples of slow fevers with cough, and sometimes a puriform expectoration, which proceeded from the virus, without its producing any other symptom in the system. *Brambilla* relates, in his Treatise on Phlegmon, so striking an instance of this kind, that I shall here transcribe it. "An electuary," says he, "was ordered for a consumptive patient whose situation was desperate. By a mistake of the apothecary, the electuary was given to a syphilitic patient to rub with, and the other not suspecting the mistake, took the mercurial ointment instead, swallowing about the quantity of a nutmeg, two or three times a day; and, to the great astonishment of the doctor, who afterwards learnt the fact by chance from the apothecary, was radically

cured of his complaint.” This mistake was certainly very fortunate for the consumptive patient; and though one may still doubt if the phthisis was syphilitic, it is at least certain that it was cured by the mercury.

This observation is very interesting in two respects: 1°. Because it shows that there are cases of consumption that may be cured by mercury. 2°. Because it proves that the grey oxyde of mercury, taken internally, produces the same effects on the mass of the blood, as the other mercurial preparations.

Werlhof says he has observed intermittent fevers produced by the syphilitic virus, or complicated with syphilis. Perhaps some of the fevers which *Lysons* cured with the submuriate of mercury were of this kind. *Stoll* also observed a quotidian fever, which resisted bark, and was quickly cured by mercury. I think, however, that it is wrong to suppose that all these fevers were of a syphilitic nature because they yielded to mercury; for attentive and judicious practitioners have observed in England, that the most obstinate intermittent fevers, in which the best bark had been used without success, were easily removed by that medicine, after the patient had taken for some days, the submuriate of mercury, or the oxymuriate, and in cases where there was not the least reason to suspect a latent syphilitic virus. I have had occasion myself to verify this important fact several times. The effects of the mercurial preparations, in these cases, seem to

proceed from the powerful action they have on the biliary system, from accurate observations made by enlightened physicians in warm countries.

But we must be careful in no case to give mercury combined with bark or other astringents, as several authors have improperly advised; for these two medicines, given together, destroy each other, as I have mentioned above.

Obstinate sore throats, violent head-achs, vague pains in different parts of the body, painful swellings in the joints and bones, which are frequently considered as rheumatic or gouty, often proceed from syphilis: but they are often also the effects of mercury taken imprudently, or of the negligence or thoughtlessness of the patient, who, during a mercurial course, has exposed himself to cold and wet. As it is of the greatest consequence in practice to discover the real cause of these complaints, and as without it, we may flatter ourselves in vain with the hope of a radical cure, we should never be in a hurry to prescribe medicines; but should first examine most attentively, and even repeatedly, if necessary, what has been the past life of the patient, the disorders he has laboured under, the remedies he has taken, and the regimen he has followed.

By following these wise precepts, I have succeeded more than once in discovering the hidden source of complaints that no one suspected. Sometimes I found it was a blennorrhagia

stopped or suppressed in the beginning by quack medicines, sometimes ulcers or chancres hastily healed by astringent or caustic applications; and this sometimes many years before, so that the patient had not the least suspicion that his present complaints could have any connection with the old ones. In other cases, I have seen these complaints arise from the use of quack medicines, sold to the credulous public as sure and certain remedies for curing syphilis and all syphilitic complaints without mercury. In short, at other times, these disorders are owing to the imprudent use of acrid mercurial preparations, particularly the corrosive sublimate; or to a proper mercurial course, but badly kept up, or abandoned repeatedly, either from impatience or other causes, previous to a radical cure.

It is these syphilitic complaints improperly treated, sometimes complicated, sometimes disguised, particularly in constitutions already worn out, either by the virus, or still more by quack medicines, (above all, if, as often happens, there is a gouty disposition,) which are so difficult to cure, and which even sometimes become quite incurable.

Disguised syphilitic complaints, particularly vague pains, ulcers, or blennorrhagias, are sometimes quickly cured by the gum-resin of guaiacum, and the submuriate of mercury in pills, sometimes united with the extract of hemlock or aconite.

It is in the greatest number of disguised

sypilitic complaints that the oxygenated medicines deserve a trial as a new resource of art, or perhaps, according to circumstances, the chalybeate waters, or other preparations of iron, or the flesh of the iguan, in order to develop the effects of the virus, and thus ascertain its existence.

CHAPTER XI.

OF SYPHILITIC AFFECTIONS WHICH RESIST MERCURY.

THOUGH there are few practitioners who have not seen frequent examples of syphilitic complaints which resist mercury, and that there is hardly a writer of any importance who does not make mention of it, nevertheless, not one, that I know of, has made exact and satisfactory researches on this subject, or has properly exposed the causes of this phenomenon, or still less has indicated the means of curing these complaints under such circumstances : this has induced me to examine the matter with attention, and to explain in a particular chapter the result of my enquiries.

As there are some intermittent fevers which seem to resist the power of bark, so there are syphilitic complaints which seem, and which really do resist, that of mercury. In particular, we see ulcers of the genitals and throat, cutaneous eruptions, condylomata and other excrescences, exostoses, &c. in different parts of the body, which sometimes elude the action of

mercury, however well administered. It is often very difficult to determine with precision the cause of this real or apparent incurability. The following appear to me to be the principal causes :

1°. The nature and the quality of the mercurial oxydes and salts, that is, the bad or negligent manner in which they have been prepared, their mixture, or the form in which they have been administered ; their combination with other substances which diminish their effect ; or which even completely destroy their virtue ; and in short, the dose and manner in which they have been given.

2°. The regimen which the patient has followed during the course, and the length of time he has continued it.

3°. The climate.

4°. The constitution of the patient, either general, or particular, and its present state, with the age and sex.

5°. The state of health, and the complaints either syphilitic or other, which he has laboured under, or with which he is affected at the time.

6°. The regimen which he followed during and after the mercurial course.

7°. Faults in the moral conduct of the patient, as well as of the physician during the use of mercury.

8°. Finally, the real nature of the precedent or present complaint.

We must therefore examine, 1°. If the disease has been, or is at present really syphilitic, and in this case, if it be complicated with scurvy, scrofula, or other diseases. 2°. If the nature of the disease has been doubtful from the beginning, if it has become so since, and if it is so at present.

Since the application of the mercurial ointment in frictions, which was the first and for a long time the only method employed for the cure of syphilis, many other mercurial preparations have been discovered and tried, internally or externally, both to cure complaints which did not yield to frictions, as well as to effect the cure in a quicker or less inconvenient manner. I shall not here discuss the preference which some of these methods or preparations deserve above others. In the xix, xx, and xxi. chapters I shall fully examine the nature of the different mercurial preparations, as well as the more or less advantageous methods of administering them. I shall therefore confine myself here solely to examine why mercury administered in frictions, or in any other manner, sometimes fails in curing syphilis.

I have seen numbers of persons attacked with inveterate blennorrhagias, ulcers in the nose; in the throat, or the genitals, cutaneous eruptions, condylomatous or warty excrescences, periostoses, exostoses, and caries, which seemed obstinately to resist the power of mercury, though its use had been continued a long time.

After a very attentive examination, I found that it was very often in the medicine itself, or in the manner of applying it, that the difficulty lay. I have seen, 1°. that the mercurial oxyde or salt had been improperly prepared, or combined with bark, sulphur, or other substances which prevent or even destroy the action of the mercury; 2°. that it had not been given in sufficient quantity, or continued long enough; 3°. that it had been given in too great quantity, or improperly, and that it had excited salivation, sweats, or looseness, without destroying the virus completely.

The great point in the treatment of all syphilitic complaints by mercury, being to introduce into the animal economy the necessary quantity to destroy the virus completely, the best means of producing that effect seems to be to introduce the greatest possible quantity of a well made and appropriate preparation, with the least possible excitation of the action of the different excretory canals. From this, it is evident, that mercurial remedies, unskilfully or negligently prepared, or ill chosen, either with respect to the constitution of the patient, or the degree of his complaint, or that mercurial oxydes or salts mixed with substances incapable of keeping them in solution, cannot produce the desired effect. The gummy oxyde of mercury employed in mixture, and the nitrate of mercury combined with alcohol in *Belet's* syrup, are striking examples of this kind; mercury never remains suspended in

mucilage or alcohol except for a very short time ; the mercurial oxyde, exposed from negligence to the rays of the sun, is soon reduced in great part to the metallic state, and falls to the bottom of the vessel. It is the same when mercury has not been triturated long enough, or with sufficient care, to change it into a perfect oxyde : its effects can then be only very uncertain. When any mercurial salt or oxyde is prescribed under the form of bolus, pills, &c. and that the apothecary has been careless in making the composition, one pill may contain three grains or more of mercury, another only one, or perhaps none at all. The latter, therefore, will have no effect, while the first will occasion colics, diarrhœa, and other violent effects.

The same inconvenience takes place, when the combinations I have just mentioned are used, in which the oxyde or salt are disposed to precipitation : the patient frequently takes little mercury in the beginning, and a great deal, or even too much at once, towards the end.

There is the same uncertainty as to the quantity of mercury introduced into the body, if frictions are made too violently or negligently ; which happens principally with women. They perform the five or six first frictions very exactly ; but they are soon tired, and continue them with less care as soon as the symptoms disappear. It is the same when frictions are performed with the naked hand by another person. Moreover, if the ointment is acrid, or rancid, or there be

turpentine in it, or otherwise ill-prepared, it will irritate the skin, and produce a sort of erysipelatous inflammation, pustules, &c. and will prevent the absorption of the mercury, or the continuation of the frictions. In all these cases, one is astonished that the patient feels little or no relief, notwithstanding the length of time, and the quantity of mercurial ointment that has been employed; while, with a little more attention, it would be found, that during all these frictions only a very small portion of mercury has entered the body, the patient rubbing in for a few minutes only instead of an hour.

The same thing happens when mercury is given internally, and by inattention, or a bad choice of the mercurial preparation, it produces colic and diarrhœa.

As one may be deceived in thinking that a sufficient quantity of mercury has been given, because large doses have been prescribed, and continued for a long time, while at the same time only a very small quantity has entered the blood, so one may also fall into the opposite mistake, by overcharging the constitution with too great a quantity of some mild preparation, or with an acrid salt or oxyde of mercury, which is not suitable for the patient; or which produces violent effects, as abundant salivation, spitting of blood, nervous complaints, &c.

We may here remark that a mercurial preparation is always ill adapted, whenever it is incapable of being absorbed, or of entering the

animal economy, or when, having penetrated into the circulation, it is carried off by salivation, sweats, or urine, before it has produced the desired effect on the virus ; and as I have said above, it is a serious error to suppose, that all the virus may be driven out by salivation or immoderate sweats, and that the patient is radically cured ; for it is just the contrary. It is true, that when a patient is salivated, all the symptoms frequently disappear, but it is a mistake to suppose that he is radically cured, for at the end of some months, or even a few weeks, the syphilitic complaints appear again with as much or more violence than ever. I do not, however, deny that the disease, particularly if slight, may now and then be radically cured in this manner ; but I maintain, from repeated observations, that salivation of itself has no influence on the cure of syphilitic complaints.

Salivation is a certain sign that the mercury is acting on the system, and that it is absorbed into the blood, which is a principal point in the treatment, but not at all that the virus and its effects are destroyed, or that the disease is radically cured ; on the contrary, a strong and continued salivation should rather make us doubtful of the cure, and apprehensive of its failure.

I shall here make a general remark, that to be certain of curing his patients, every practitioner who does not give medicines by chance, should never use any mercurial composition which he

has not prepared himself, or had prepared under his eye, or by some person of known probity and exactness. The frequent inconveniencies I have myself experienced on this point, with what I have seen happen to others, have made me scrupulously exact, and even severe, on this head.

Acrid preparations should never be given when the cure can be performed by milder means. This precept is still more true and important, when mercury is to be given to delicate, irritable, and nervous persons, or who are subject to spitting of blood, colics, &c. The terrible effects produced by the corrosive sublimate, turbith mineral, &c. which I have witnessed more than once, force me to insist more particularly on this precept. The constant effects of these acrid medicines, particularly in persons of a delicate constitution, are pains in the stomach and bowels, loss of appetite, violent gripings, diarrhœas, and sometimes dangerous colics; in other cases they excite spitting of blood, convulsions, nervous fevers, and other complaints more dangerous than those they were destined to cure; or else they excite immoderate sweats, or a salivation, or corrosive ulcers in the mouth, which often hinder them from being continued long enough to effect a cure. If acrid and powerful preparations are to be used, as may sometimes be judged proper, particularly in affections of the skin or bones, we should previously examine well if the constitution of the patient is not against it; and even where it will

permit, we must begin with very small doses, in order to avoid the inconveniences I have mentioned, and particularly the diarrhœa: for when that has taken place, the mercury, instead of being absorbed, or entering into the mass of the humours, is carried off by stool, and torments the patient, without giving any relief.

There is as much, and even more uncertainty, if mercury be combined with substances which change its nature, or entirely destroy its virtue; for example, if it be mixed with sulphur, sulphuret of antimony, or hydro-sulphuret of antimony: the Ethiops mineral, cinnabar, antimonial Ethiops, Plummer's pills, or powder, &c. all belong to this class of uncertain remedies for syphilis. The same thing happens in a more striking manner when mercurials are mixed with astringents, or given at the same time, though separately. Thus I have seen the corrosive sublimate, turbith mineral, the red oxyde of mercury, &c. given for a very long time, and in large doses, jointly with a decoction of bark; and the physician, as well as the patient, were much astonished, not only that the disorder did not yield, but that it grew evidently worse. This fact has been used to prove, that these acrid salts are not so hurtful to the body as some théoretic writers have pretended. I have seen enlightened physicians, astonished at what they observed, believe that the particular constitution of the patient was the only cause why these

acrid salts or oxydes, so imprudently given in such enormous doses, and continued so long, did not produce any serious symptom in the body. But our astonishment ceases, when we know that bark, tea, and astringents in general, given in infusion or decoction with mercurial preparations decompose them, and render them perfectly inert. Any one would be convinced of this fact, on swallowing a very large dose of corrosive sublimate, and drinking a strong decoction of bark immediately after ; this poison would remain inactive on the stomach.

We should, therefore, always give the greatest attention to the choice and manner of administering mercurial preparations ; applying, in every case, that which seems most suitable to the temperament and state of the patient ; never using uncertain or absurd compositions, and particularly never giving, during a mercurial course, other medicines which may oppose or destroy the action of the mercury. We should never obstinately continue a preparation which produces no good effect, or does harm, nor follow the example of quacks, and ignorant and routine practitioners, whose knowledge is confined to one only remedy, known or secret, which they give indifferently to all their patients, in all cases, and who boldly pronounce that their patients are cured as soon as the symptoms of the disease have disappeared ; which is the more easily believed by young people and

women, who do not like to be long confined or troubled. Thus, for one whom they may cure now and then, they ruin the constitution of a great number, and commonly make the disease more obstinate and difficult hereafter. In fact, the virus remains stifled for weeks, months, and even years; but at length it bursts forth with greater fury, and produces symptoms and complaints, of which the most clear-sighted physician can hardly discover the nature, particularly in females, and which, in that state, often elude all the efforts of art; for the older syphilitic diseases are, the more they resist the specific power of mercury.

The third cause which prevents mercury from curing syphilitic diseases belongs to the climate.

Bruce has observed, that at Sennaar, mercury produced no good effect on syphilitic complaints, and attentive physicians have confirmed this observation. We are ignorant of the cause of this phenomenon; but it is an indisputable fact, that in the climates of the torrid zone, mercury is often given without effect, and sometimes even found pernicious in the treatment of syphilitic complaints. The French physicians and surgeons confirmed the truth of the same observation in the last expedition to Egypt.

Hornemann, in his *Travels in Africa*, informs us, that at Mourzonk, in Fezzan, there are two kinds of syphilis, of which that brought from Soudan is the worst, and is therefore called the

Soudan disease; the others imported from Tripoli, Cairo, &c. called *franzi** (the French disease). To cure the latter, they make use of neutral salts, and of the fruit *handal* (*cucumis colocynthis*), as purgatives. If there are any ulcers, they are washed at the same time with carbonate of soda (*natron*) dissolved in water. These remedies seldom fail of producing the desired effect, unless the disease is too inveterate.

The fourth and fifth causes, which often hinder mercury from effecting a cure, belong to the general constitution, or some particular disposition of the patient. Nature co-operates easily with mercury in some constitutions, while in others, it only acts slowly, and with difficulty. In this case, to render it active, the daily application of electricity, baths, and sudorifics, are sometimes necessary; or else more powerful mercurial salts, larger doses, and the internal use of them with frictions or mercurial baths; at other times, mercury must be given with opium. Strong and plethoric constitutions must sometimes be reduced by bleeding and purgatives, and above all by diet; while weak and irritable temperaments require a strengthening

* I have been informed by a friend of mine in London, that Hornemann, in his original letter, says, that this Soudan disease is a preservative against the ordinary syphilitic or venereal disease; which, imported from Cairo, or Tripoli, is there called the French disease, or simply *franzi*. I do not know why this very remarkable fact is omitted in the publication of his Travels.

regimen, in order to enable us to administer the mercurial treatment with safety.

Women with child and children cannot bear the mercury without particular precautions. Some patients cannot bear mercurial frictions, either from a peculiar irritability of the skin, or because they produce disagreeable effects, as colics, diarrhœas, &c. while the same patients support much better mercurial preparations internally, and vice versâ.

To conclude, some persons are unpleasantly affected with one preparation of mercury taken internally, while another agrees with them. Mercury alone does well with some stomachs, but for others it must be joined with opium, some pleasant aromatic, &c. There are patients, particularly females, or those who have taken a great quantity of mercury for former syphilitic complaints, whose constitutions become so irritable, that after they have taken a few grains of mercurial oxyde or salt internally, or some frictions, they are affected with violent pains like rheumatism, nervous fevers, anxiety, restlessness, colics, spasms, head-achs, and exhausting sweats, &c. or else they easily fall into a salivation. It is particularly with regard to such constitutions, that we must be singularly attentive as to the most suitable preparation and dose of the mercury.

It is sometimes useful and even necessary in such cases, to administer soothing medicines, lukewarm baths, the decoction of sarsaparilla,

with a small portion of carbonate of soda, and opium, before the mercury is given or continued. *Dr. Kortum* recommends opium in large doses, or else the *atropa belladonna*, in complaints which resist mercury, or make a progress during the use of it. In other cases, the patient must be previously strengthened with bark, and a nourishing diet. It is in these cases principally, and more particularly in certain ulcers, or when the bones are affected with a rooted and inveterate virus, that the mercury must be sometimes discontinued, and instead, a decoction of guaiacum, of sarsaparilla, or the carbonate of soda, iron, or other strengthening medicines, with a suitable regimen. By the use of these last remedies, it very often happens, that in proportion as the patient gains strength, the virus, which was in a manner deadened, is developed with energy, and the syphilitic symptoms re-appear. The use of mercury must then be resumed, and continued as long as the state of the patient will permit, and afterwards return to the regimen and preceding remedies, thus alternating as often as necessary, till the virus is completely destroyed, the caries exfoliated, and the patient, in short, radically cured. It is in these cases, unfortunately, that the enlightened practitioner finds the greatest obstacles on the part of the patient, or his relations and friends; he is sometimes reproached with negligence or ignorance, and losing their confidence, the patient is thrown into other hands.

Notwithstanding, if these precautions are neglected, many such patients will certainly be exposed to suffer during their whole life, without ever obtaining a radical cure; particularly when the mercury given imprudently in too large doses, has developed the germ of the gout in delicate and irritable habits, or else periostoses, or real and very painful exostoses in different parts of the body, particularly in the joints of the knee, the shoulder, clavicle, &c. It is then that mercury, though it may give relief for a time, often increases the complaint to the last degree, and sometimes renders it incurable. In these cases, relief may frequently be obtained from sulphureous mineral waters in the form of baths, and internally, the alkaline waters supersaturated with carbonic acid. Vapour baths and embrocations * are also here often of great advantage.

As to *regimen* during a mercurial course, it is proper to mention a particularity to which commonly very little attention is paid. Most authors and practitioners keep their syphilitic patients, without distinction, to a spare and very strict diet, both as to food and drink. This rule is very bad when made general, and applied in all cases. Such a diet is often very proper, particularly for strong and vigorous constitutions; but for those which are weak, delicate, or irritable,

* I have used the word embrocation in its primitive sense, from which it has been strangely perverted: it is derived from the Greek $\epsilon\mu\beta\rho\chi\eta$, and signifies trickling down drop by drop.

it would be very hurtful. The latter must have a nourishing regimen, with a moderate use of wine; without which, the mercury has no action on the virus, but produces very bad effects on the constitution. Syphilitic complaints are often subdued during a severe regimen of this kind; they even disappear so far as to make the patient believe he is cured; but some weeks or months after, he has returned to his ordinary way of living, they torment him again, and force him to have recourse to another syphilitic treatment.

The seventh reason why mercury does not produce the desired effect, is faults in the moral conduct of the patient or physician. Patients prolong and aggravate their complaint by attempting to cure themselves, or by applying to quacks, or ignorant practitioners. They also frequently hurt themselves, when they do not observe the regimen, nor take the medicines in the manner prescribed, and particularly when they do not continue them regularly, and long enough, but leave them as soon as the symptoms have disappeared; when they expose themselves imprudently to a cold and damp atmosphere, particularly at night; they do themselves harm also, when they become impatient and inconstant, when they are always consulting some new physician, and take a medicine for some days or weeks, and then fly to another.

On the other hand, these complaints frequently become obstinate from the ignorance or bad conduct of certain practitioners, who, from negli-

gence, ignorance, want of judgment or resolution, or sometimes perhaps from viler principles, follow a bad plan, or do not insist sufficiently on the necessity of following a proper course and essential regulations ; or in short, who neglect to point out the dangers which may result to the patient, from not conforming to these rules. I have several times seen practitioners mistake for syphilitic diseases, blennorrhagias, blennorrhœas, diseases of the prostate gland, different ulcers of the mouth, tongue, throat, and genitals in both sexes, pains resembling rheumatism, or gout,—in short, scrophulous, scorbutic, leprous disorders, &c. which had no syphilitic character. All these different circumstances, alone or combined, render the use of mercury uncertain, useless, or hurtful.

Eighthly, The nature of the disease itself being mistaken or complicated, is one of the most frequent causes of the obstinacy of certain syphilitic affections in resisting mercury. (I have cited a remarkable example, chap. xvi.) Several important circumstances must here be considered : 1°. Most commonly, the disease is really of a syphilitic nature, and only resists the mercury apparently, because it has not entered the body in sufficient quantity, or so as to destroy the action and effects of the virus, or because the preparation used did not agree with the patient's constitution. Again, when the patient, from having formerly taken mercury in too great quantity or without precaution, can

hardly support a few grains or frictions without falling into a salivation, it is in the disease itself that the cause must be sought which hinders the beneficial effects of the mercury. If, in this case, the mercury is given up, the patient cannot get rid of his disorder; and if it be continued, a painful ptyalism is sure to come on, which sometimes lasts whole weeks and months, exposes the patient to dangerous consequences, and often leaves the principal complaint uncured.

I have seen many cases which resisted different sorts of treatment cured afterwards by a simple decoction of sarsaparilla. I have seen others which, after having resisted the latter medicine, taken for two or three months together, were radically cured at last by long-continued frictions. I lately saw a man forty years old, of a lean habit of body, who, after being treated by corrosive sublimate and frictions for several months, was affected by an exostosis in the superior and external part of the femur, with dreadful pains day and night, and who was completely freed from it by the use of Pollini's decoction, which he took for two months; but three months after, he was seized again with a painful exostosis in the ribs and clavicle, which hindered him from attending to business. He went to the country, and finding no relief, put himself in the hands of two celebrated practitioners at Paris, who advised a complete mercurial course by rubbing. Instead of getting better at the end of four months, he was reduced

to the last degree of weakness ; the frontal and parietal bones were affected with tubercles which were taken for exostoses, but which I think were only the unhappy effects of the mercury ; but he was at last radically cured, it would seem by the saturated decoction of sarsaparilla.

2°. It very often happens, that we are deceived in our expectations from mercury, merely from misconceiving the nature of the disease, and because affections are considered as syphilitic which never were so ; which is the case particularly with a great number of gonorrhœas, chancres, warts, or other excrescences on the genitals, ulcers, vague pains, diseases of the skin, &c. or in which the syphilitic disease is complicated with other complaints, as leprosy, elephantiasis, herpes virus, scurvy, scrophula, gout, &c. In some of these cases mercury has no effect ; in others it is bad or fatal.

3°. These affections, though originally produced by the syphilitic virus, have changed their character, and degenerated either by time or regimen, or by the effect of the mercury itself, or other causes, into diseases quite of a different nature, for which mercury, far from being salutary, is become a real poison. Such are exostoses and caries of the bones. The virus is in these cases often completely destroyed by the mercury, but the caries continues ; and it would be a great mistake to imagine that the cure would be accelerated or effected by continuing the mercury. No radical cure is then to be

expected without a complete exfoliation of the carious bones; and this is an operation of a nature often very slow. By attempting to hasten it by mercury, the patient is sometimes hurried to the grave. It is in ulcers principally that this change is apparent. They become stationary under the use of mercury, and soon after tender and painful at the least touch; and the matter is acrid and corrosive. In other cases the direct contrary is observed; the patient is overpowered with a general weakness, an universal cachexia; the gums bleed easily, the breath and mouth are offensive; the ulcer grows livid, dirty looking, and asthenic; and the patient has neither life nor vigour. Practitioners generally distinguish these two states of ulcers; the first under the name of *scrophulous ulcer*, the other *scorbutic ulcer*; but these denominations are often rather figurative, than indicative of the real nature of these ulcers: and in London, I saw with J. Hunter several patients with ulcers which he called scrophulous, that had no other symptom of real scrophula, than that degree of general and morbid irritability which is sometimes observed in scrophulous patients.

Mercury is in either of these cases a real poison: it really increases the disease, and if persisted in, is sometimes followed by gangrene and death. In the first case, baths of sulphureous mineral waters are advisable; also alkaline mineral waters, astringents, particularly bark, the decoction of green walnut-shells, animal

diet, and sea-bathing: in the second, the vegetable acids, antiscorbutic medicines, and regimen, perhaps the oxygenated medicines, wine, and the pure air of the country: and towards the end, the acidulous and ferruginous mineral waters, and other strengtheners. As to the treatment of these complaints, so opposite in their character and nature, I refer the reader to the chapters on ulcers and complicated syphilitic diseases:

From what I have said in this chapter, it appears that the cases in which mercury is hurtful, and fails to cure, are not unfrequent.

I have given a pretty complete account, chap. xii. of the different medicines that have been tried in these obstinate cases, some of which succeed sometimes very well; but of all the remedies that have hitherto been recommended for the cure of syphilitic disorders, particularly those which have proved incurable by mercury, I have met with none whose effects are superior to those of the decoction of Pollini.

On Pollini's Decoction.

This medicine has such peculiarly remarkable qualities and properties, that it deserves mention in this place.

1°. According to chemical analysis, it contains no mineral, nor acid, nor oxygenated, nor saccharine substance.

2°. Not an atom of mercury or mercurial salt ; for I have given it several times for ulcers of the throat that resisted mercury, and during a violent salivation by mercury it ceased in a few days, and the ulcers were healed by the continued use of this medicine. If it contained the least portion of mercury, the salivation would certainly have increased, instead of stopping.

3°. In well-corked bottles, it will preserve its qualities and properties for years. I have employed it when it had been in bottle four or five years, and found it as efficacious as if it had been prepared only a few days.

4°. It may be carried to different countries without suffering any alteration. I know a man, who, being dangerously ill at Constantinople, sent for some by sea, and was radically cured by it.

5°. It cures in general all complaints originally syphilitic, for which mercury has been repeatedly employed in different forms without success.

6°. It cures radically complaints that resist mercury, whether ulcers, pains, or exostoses in general ; but it does not produce this salutary effect always, and in all cases. In this it is like opium, which does not always produce sleep ; or bark, which does not cure all intermittent fevers, or in fine mercury, which does not always cure the syphilitic disease.

7°. I have not been able to discover the cause of this last phenomenon ; only I think I have

sometimes perceived that it depended sometimes on the conduct of the patient, particularly on excesses of the table, during the use of it.

8°. It generally cures syphilis very speedily, but sooner in the warm climate of Italy, Sicily, &c. than in cold and damp climates.

In warm countries it produces its effect generally in five-and-twenty or six-and-thirty days; but in cold countries it requires eight-and-forty, fifty, and even sometimes sixty days.

9°. I do not know if this medicine alone cures syphilis radically, without the previous use of mercury; at least I have not facts sufficiently positive and numerous to decide the question. Pollini pretends that in Italy it cures all syphilitic complaints without mercury. If this fact were well ascertained, this medicine would become a precious acquisition for the cure of patients who cannot bear mercury, or when the latter has no action on the virus; it might also be applied with advantage to pregnant women, or persons subject to a spitting of blood. The dearness of it, and the uncertainty of its action hitherto, have prevented me from employing it often in such cases. I have seldom recourse to it except in dangerous and obstinate cases, when mercury has been given without success, or has produced pernicious effects.

10°. I know no other disease in which this remedy has been employed with advantage, except in some rheumatic affections of a doubtful syphilitic nature.

11°. It may be employed in all climates and seasons. During the use of it the patient may go out and attend to business; if taken during winter, it has none of the bad effects which mercury so often produces.

12°. It generally acts by stool, and causes three or four, and sometimes ten a day, but gives no colic: in other cases, however, it acts chiefly by perspiration, sometimes by urine; and in some patients all the three ways at once. But there are cases also in which it produces no sensible effect on these excretories; and notwithstanding the complaints diminish, and at length cease entirely.

As to the administration of this medicine, and the regimen the patient is obliged to follow during the use of it,

1°. He must take a bottle a day, divided into four large glasses, two in the morning and two at night, shaking the bottle well* each time before pouring into the glasses.

2°. If his stomach is irritable, and the medicine does not pass easily, he must begin by taking only the half in a day, that is, one glass morning and night; and for greater security, he may take only half a glass at once, and the rest an hour or half an hour after.

3°. It is taken cold, but after each dose a dish of tea, particularly *souchong*. Thus a glass must be taken every morning at six or seven, and immediately after a dish of warm tea. Half an hour, or, according to circumstances, an

hour after, he will take a second glass, and another dish of tea immediately after. He must then remain quiet in bed without reading or occupying his mind seriously for three hours; when he may get up, and breakfast on coffee or rice. He must do the same at night, taking care to come home early; and must arrange his dinner so as to take the first glass about five hours after it; and the second, an hour or half an hour after, always swallowing a cup of tea after each glass; and thus he will continue regularly during the whole course, that is, forty or fifty days. Women must discontinue it during menstruation.

4°. The patient must observe rather a strict diet, that is, he should live chiefly on farinaceous food, rice, semolina, vermicelli, &c. He must eat little meat, and that simply boiled or roast, with vegetables: must avoid acids and ragouts, and make only one meal a day: for his drink, he must take water, wine and water, or good beer.

5°. In ulcers of the throat, nose, or other parts, and in caries, he must use it as a lotion, or with wet compresses, or as a gargle, or injection.

6°. During this course, he must take a warm bath, with dry frictions every two or three days.

7°. Syphilitic complaints gradually diminish under the use of this medicine, sometimes in a few days; but in pains produced by periostoses, or

exostoses, it requires sometimes eighteen or four-and-twenty days, before the patient is effectually relieved. At this period they generally cease, and the patient feels himself quite another man; and he is generally radically cured by continuing the treatment twenty or five-and-twenty days more. If the medicine does not produce its effect in the first twenty or four-and-twenty days, I never advise it to be continued; for I have observed, that in that case it hardly ever effects a radical cure, though it should be continued beyond fifty bottles: but if the ulcers diminish or heal, and the pains of the bones cease in the first twenty or four-and-twenty days, I have always great hope of a prompt and radical cure. There are, however, particular cases, as I have remarked above, where the hopes of the patient and physician are equally disappointed.

If this medicine does not produce its salutary effect in the time mentioned, it fails to cure, and nothing can be hoped from its continuance: we should rather return to the mercury, and repeat the medicine again, if necessary or convenient. By this alternation, as I have remarked elsewhere, we may sometimes happily effect a radical cure of the most inveterate syphilitic complaints. But it is well to repeat, that however powerful this medicine, it does not cure in all cases.

CHAPTER XII.

OF REMEDIES FOR SYPHILIS NOT MERCURIAL.

SECT. I. — OF OXYGENATED REMEDIES.

MR. William Scott, of Bombay, well acquainted with modern chemistry, and knowing the good effects of mercury in the *hepatitis chronica*, was the first who conceived, in 1793, that the same effect might be produced by the nitric acid taken internally; an acid which is composed of oxygen and nitrogen, or azote: but the nitrogen having but little affinity with the oxygen in this composition is easily separated from it. Being then affected with a liver complaint, he resolved to try the effects of the nitric acid on himself. He took about sixty grains a day, diluted in two pounds of water. The result was, that he was cured in seven days. This fortunate experiment determined him to make a trial of the acid, in those countries, in syphilitic complaints.

He found that oxygen, administered in this manner, in that complaint in Hindostan, was

not less efficacious than mercury in all its forms and degrees: its effect was even sometimes superior; for it succeeded completely in several cases where mercury had been given before, for a long time, both in Europe and India, without success. He observed, moreover, that the acid produces none of the unpleasant effects of the mercury, and that it may be continued a longer time without danger. Many syphilitic complaints were cured by this new remedy, in that hot climate, in a very short time, commonly in fifteen or twenty days, without any bad effect whatever. Notwithstanding, Mr. Scott had the honesty to add, in his letter from Bombay, 1796, that in certain cases of syphilis it had not produced a cure; but it was in persons who had tried mercury a long time before without any advantage. At the same time, he observes, that several syphilitic complaints were cured by this acid alone when no other remedy had been employed; and during two years no relapse had occurred, though the cases had been of very great variety.

These observations on the nitric acid in syphilitic complaints, by Mr. Scott, being published at Edinburgh in 1797, induced Dr. Rollo, physician to the Artillery Hospital at Woolwich, the same year, to propose a repetition of these experiments in Europe on primitive or original syphilitic complaints, that is, which were produced by immediate infection. Mr. Cruikshank undertook these experiments in that hospital.

Their result, and the exactitude with which they were detailed, deserve the attention of all medical practitioners.* Mr. Cruikshank, in order to clear the point in question, and ascertain if it was really the oxygen which cured syphilitic complaints, when treated with mercury, suggested the idea of making trials, 1°. with nitric acid; 2°. with oxygenated muriatic acid; 3°. with the citric acid; and 4°. with the super-oxygenated muriate of potash.

To enable the reader to judge for himself, I shall give an analysis of these experiments, adding, in notes, some reflections necessary for understanding the results.

1. — *Experiments with the Nitrous Acid.*

1°. THE patient had a syphilitic ulcer on the glans, near the frænum, of three or four days standing: he took a drachm of nitrous acid in twenty ounces of water once a-day; the dose was augmented some days after to a drachm and a half a-day. He came into the hospital the 12th of March, and was cured the 19th of the same month.

2°. The patient had several syphilitic ulcers on the glans and præpuce, with a phimosis that

* These facts are contained in a very interesting work on the *Diabetes Mellitus*, by Dr. Rollo, in 2 vols. 8vo. London, 1797, which contains facts entirely new on the nature and treatment of that disease, considered till then as incurable.

had lasted eight days. He took a drachm of the same acid with two pounds of water a-day. Three days after, there being no sensible effect, the dose was raised to a drachm and a half. He was received the 12th of March, and cured the 20th of the same.

3°. The patient had a large ulcer on the prepuce, eight days old, with a slight discharge from the urethra. He took a drachm of the acid in two pounds of water a-day. It was increased to a drachm and a half, and afterwards to three drachms a-day ; but this producing sickness and fever, it was reduced to two and a half. He was received the 18th of March, and cured the 22d of April. — The cure had been retarded by other accidents.

4°. The patient had a great ulcer on the prepuce. He took a drachm of the acid in two pounds of water a-day. This producing colics, he had given a grain of opium at night for two days ; the dose was afterwards increased by degrees to three drachms a-day, without any inconvenience. Received 15th March, cured 18th April.

2. — *Experiments with Oxygenated Muriatic Acid.*

1°. THE patient had several syphilitic ulcers on the prepuce, for eight or nine days past. He took five drops of the acid in an ounce of water,

three times a-day. By degrees it was increased to fifteen drops diluted in water, and given four times a-day. Received the 12th March, and cured the 20th.

2°. The patient had a deep ulcer on the glans and prepuce, of eight days. He took six drops of the acid, three times a-day. No change appearing in the ulcer, it was increased by degrees to fifteen, twenty, and afterwards to forty drops, four times a-day. Received the 12th March, cured the 1st of April.

3°. The patient had several ulcers on the glans and prepuce, with a bubo. He took eight drops of the acid, four times a-day, which was increased by degrees to thirty, four times a-day; but this producing symptoms of general inflammation, he was bled some days after: the ulcer seeming stationary, the dose was increased gradually from thirty to fifty drops, four times a-day. Received 18th March, cured 22d April.

N. B. The bubo burst on the 22d March, and was cured fifteen days before the ulcer.

4°. The patient had several ulcers on the glans and prepuce, with phimosis and swelling of the inguinal glands. He took eight drops of the acid in an ounce of water, three times a-day. It was increased to fifty, four times a-day. The inflammatory symptoms were soon relieved by bleeding; four days after, he took forty-five drops, four times a-day. This was augmented,

three days after to a drachm, four times a-day. Received 18th March, cured 4th May.

N. B. This was a very obstinate case; the patient had a painful swelling in the lymphatic vessels on the back of the penis; but this tumour, as well as that of the inguinal glands, disappeared by degrees.

III. — EXPERIMENTS WITH LEMON-JUICE, OR THE CITRIC ACID.

1°. THE patient had an ulcer on the glans. He took an ounce of lemon-juice with three ounces of water, three, and afterwards four times a-day. Received the 12th March, cured the 20th.

2°. The patient had several ulcers on the prepuce and glans, eight or ten days old. He took an ounce of the juice in two ounces of water, three times a-day: it was gradually increased to four, and afterwards to eight ounces a-day. Received 12th March, cured 22d April.

N. B. Five days after he was received a bubo appeared, to which cold fomentations were frequently applied with a solution of acetate of lead; and afterwards electric sparks were drawn through it for some days, once a-day. This tumour disappeared three days after the ulcer was cicatrised.

3°. The patient had a large ulcer on the glans with a considerable swelling of the inguinal

glands. He took an ounce of juice four or five times a-day, and the same fomentation was frequently applied. The ulcer was cured in eight days. The bubo advancing towards a suppuration, was covered with an emollient cataplasm twice a-day, for four days, when it burst. Some days after, an erysipelatous inflammation appeared round the abscess, with pain and swelling. Lint was applied to it twice a-day, and a cold cataplasm above, in which was half a drachm of acetate of lead: the acid was continued internally, and increased even to six ounces a-day. Received the 18th March, the syphilitic ulcer was cured the 26th of March, the bubo the 24th of April.

IV. — EXPERIMENT WITH THE SUPER-OXYGENATED MURIATE OF POTASH.

1°. FOR ten days past, the patient had several ulcers on the glans and prepuce, with a considerable swelling in the inguinal glands. Took three grains of the super-oxygenated muriate of potash four times a-day for three days; no sensible effect appearing, it was increased to four, and after to five grains, four times a-day, with electrical sparks once a-day through the inguinal swelling.* The ulcers were cured in thirteen

* It was the late Mr. J. Birch who first proposed electricity in this complaint of the inguinal glands.

days; but the bubo increasing, the electricity was discontinued, and the cold fomentation with acetate of lead was frequently applied, increasing at the same time the dose of the salt to seven, and then to eight grains, four times a-day. The bubo burst, and without giving much matter, was perfectly consolidated and cured twelve days after. Received the 27th April; ulcers cured the 9th May; the bubo completely cured the 29th.

N. B. A week after this patient had begun to take the super-oxygenated muriate of potash, his pulse rose to ninety in a minute, and his tongue became white in the middle. A little blood was taken from him, which formed the inflammatory crust (a coagulation of the albuminous part of the blood); and though the dose of the salt was increased from five to eight grains, four times a day, he continued in good health. In the use of this medicine, neither the great appetite, nor the abundant quantity of wine was observed, as in all the other patients above-cited, who had taken acids.

2°. The patient had several ulcers on the glans with a phimosis. Took three grains of the salt, four times a-day, and four days afterwards, seven grains four times a-day. Received 3d May, cured the 16th.

N. B. Ten days after taking the salt, he complained of thirst, and his tongue became very white in the middle; but without any increase

of appetite or urine. His pulse remained all the time nearly in a natural state.

3°. The patient had several ulcers on the glans and prepuce, and the latter was considerably thickened. He had been ill for nearly three weeks before he was received. Began by three grains of the salt, four times a day; increased nine days after gradually, from five to eight, and finally to nine grains four times a-day, without any remarkable symptom but a little more thirst, and a slight whiteness of the tongue. Received 8th May, cured 29th.

4°. For a week, the patient had had an ulcer on the prepuce. At the beginning, he took six grains of the salt, four times a-day, and after, by degrees, as much as eight grains four times a-day. Received 25th May, cured 2d June.

N. B. Symptoms nearly the same as in the preceding case.

5°. The patient had several ulcers on the prepuce, which had begun eight days before, and had rapidly increased, not only in number, but in size. Took four grains of the salt, which was gradually increased to eight, nine, twelve, and even fourteen grains, four times a-day. Received the 8th May, cured 18th June.

N. B. This patient was evidently of a scrophulous constitution. Seven days after he was received, he began to complain of thirst; his tongue became a little white, and the ulcers of the penis were surrounded with an erysipelatous inflammation. On this account, they gave him

a drachm of bark with the salt, four times a-day, and thus continued for sixteen days, when the ulcers became less painful, began to heal, and the inflammation had almost disappeared; but three days after, having come on again, they ordered the patient to take five drachms of bark, with forty-eight grains of the salt, a-day. It was supposed that it was the scrophulous habit of the patient which made the ulcers heal so slowly; but I rather think that the bark mixed with the salt, had decomposed it, at least in part, and being itself altered by this means, was the real cause of the delay. Nevertheless, I only offer this opinion, in order to make practitioners more attentive in the combination of these two medicines.

6°. The patient had for some weeks a large ulcer on the prepuce, with a considerable swelling of the inguinal glands. They began by giving him six, and two days after, eight grains of the salt, four times a-day, applying at the same time, frequent cold fomentations with the acetate of lead. In six days, the ulcers showed evidently an appearance of healing; but an abscess being formed in one of the inguinal glands, the patient continued taking ten, and afterwards twelve grains of the salt, four times a-day. Two days after this, he complained for the first time, of pains in the bowels with diarrhoea; a grain of opium was ordered at night, and the same dose of salt continued. In two days these symptoms disappeared, the ulcer

was nearly healed, and the inguinal swelling was advancing towards a suppuration. In two days more, the ulcer was healed, but the gland burst, gave very little matter, and was perfectly healed, nine days after, without the least remains of hardness. Received 11th June, ulcer cured the 22d, bubo the 30th.

All these seventeen cases were the effect of a primitive and original infection. None of the patients, as far as could be learned, had taken either mercury or any other remedy. They were all advised to wash the ulcers frequently with a solution of a grain of acetate of lead, in two ounces of water. In none of the cases was any regimen or particular diet prescribed, except to those who had a phimosis, who were obliged to keep their room or bed. In some a slight affection of the salivary glands was perceived, but no real salivation in any. The remedies were always continued several days after the complete cure. The diet was of two kinds; one consisted of milk, meat, bread, and a pint of small beer; the other of meat with a sufficient quantity of bread, vegetables, and a quart of the same beer.

It would seem from these experiments, of which I have given an exact analysis, that the nitrous acid, the citric acid, the oxygenated muriatic acid, (that is, water saturated with the oxygenated muriatic acid gas,) and particularly the super-oxygenated muriate of potash, all possess the virtue of curing the original symptoms of the

syphilitic virus, or the syphilitic diseases depending on a primitive infection, without producing salivation.

Dr. Rollo adds, in a supplement at the end of his work, that in several experiments made by different surgeons, the nitrous acid appeared equally efficacious in various cases of secondary infection.

The general effects produced by these four oxygenated medicines, were an increase of appetite, and a more abundant secretion of urine, thirst, a white tongue, and an increased action of the whole system, for the most part with a disposition of the blood to coagulation, or the inflammatory crust, as it is commonly called. The oxygenated muriatic acid appeared the most powerful, the citric the least*, the nitrous acid sometimes affected the bowels. The super-oxygenated muriate of potash occasioned thirst, and increased the action of the heart, and arterial system, in a more remarkable degree than the acids; but it hardly increased the urine or appetite. The effects produced by these different substances, therefore, seem to be in general an increased action of the whole system, generally attended with a disposition in the albuminous part of the blood to coagulation.

* A thing worth remarking in these experiments is, that the ulcers disappeared the same under the use of the citric acid, an acid which is rarely decomposed, or only with very great difficulty: while the other oxygenated remedies are easily decomposed, and leave the oxygen free.

Some months after these experiments had been published in London, Mr. Alyon read to the Society of Medicine at Paris, in June, 1797, "A Memoir on the Antivenereal and Antipsoric Properties of Oxygen," in which was the following passage :

"Who ever thought that mercury as a metal was antivenereal? Do we not know that many pounds might be swallowed with impunity, and that it would pass through the body without effect and without danger? But now that we know that mercury is the most oxydable of all metals; that it is only necessary to shake it in the air to combine it with oxygen; that the saliva is sufficient to oxydize it; and that, on the other hand, it is very deoxydable; that it easily abandons the oxygen with which it is combined; if we consider the facility with which oxygen unites to animal matters, and the tendency they have to draw it from acids and oxydes, we shall easily conceive how all mercurial preparations act. From these well-known facts, if we wish to find a powerful antivenereal, an active and permanent stimulant, we have only to take a substance containing a great deal of oxygen, and easily parting with it to animal substances."

Acting on these principles, the same author employed several combinations of oxygen as antisyphilitic: he tried an ointment composed merely of hog's lard and nitric acid, and also a solution of super-oxygenated muriate of potass,

externally, in syphilitic ulcers and diseases of the skin; he asserts that he obtained in several cases, from these preparations, much speedier and more certain effects than from the mercurial substances hitherto employed.

Some time after, experiments were made in the hospital of the Medical School at Paris, in order to ascertain with more precision the effect of oxygenated medicines, in different syphilitic affections, both local and constitutional.

Twenty-six patients were therefore chosen, whose treatment, confided to Mr. Alyon himself, was watched by commissaries named by the school. These commissaries were Messieurs Thouret, Fourcroy, Mahon, Hallé, Petit Radel, and myself.

Here follows the statement of these twenty-six patients, and the result of the treatment.

Bergeron, received the ninth Ventose. A suppurated bubo. Went out the 27th Floréal, with a remainder of the swelling, about the size of a small walnut, 19 ounces two drachms one scruple of nitric acid.

Théti, received the ninth Ventose. A phimosis and chancre. Went out twelfth Germinal, *cured*. Six ounces two drachms.

Vandenoot, entered ninth Ventose. A chancre and gangrenous inflammation in the prepuce. Went out seventh Floréal, *not cured*. Twelve ounces.

Thébert, entered ninth Ventose. Indolent bubo. Went out nineteenth Floréal, with a small hard-

ness in the gland. Twenty-one ounces seven drachms and a half.

Ponsac, ninth Ventose. Pustules and a bubo. Went out twenty-ninth Floréal, with two pustules which dried on the scrotum, and an imperfect cicatrix on the bubo. Eighteen ounces three drachms and a half.

Deshaics, ninth Ventose. Went out twenty-first Floréal. Was seen sometime after with a chancre on the prepuce. Sixteen and a-half ounces.

F. Guillot, ninth Ventose. Dismissed into the common wards, as not cured, and there was treated successfully with nitrate of mercury. Went out seventeenth Floréal. Sixteen ounces five drachms.

Delaunai, entered seventeenth Floréal. Pustulous tubercles in the scrotum and anus. Went out twenty-second Prairial, almost *cured*. Ten ounces seven drachms.

Garnier, twenty-eighth Floréal. Blennorrhagia, chancres, phimosis. Went out twenty-ninth Messidor, *cured*. Seventeen ounces seven drachms.

Paris, eighteenth Floréal. A corroding ulcer on the glans and prepuce. Went out third Thermidor, *cured* of the primitive symptoms, but not of the general pains. Sixteen ounces six drachms.

Charles Réne, twenty-eighth Floreal. Two buboes and a chancre. Went out eleventh Messidor, *cured*. Fifteen ounces seven drachms.

Loiseau, seventh Prairial. Chancre, bubo, blennorrhagia. Went out eleventh Messidor, reputed

cured, though there was a hardness round the cicatrix of the chancre. Nineteen ounces two drachms.

Leilerc, eighth Prairial. Phimosis and chancre. Went out eleventh Messidor, *cured*. Twelve ounces two drachms.

Leroi, twenty-sixth Prairial. Herpetic eruption. Went out fifth Fructidor. Appearances of a doubtful cure. Thirteen ounces of acid, twelve ounces three drachms of the ointment.

Piot, twenty-eighth Floréal. Blennorrhagia, chancres, pustules. Went out twenty-ninth Prairial, *not cured*. Three ounces six drachms of the ointment.

Ferrein, seventeenth Messidor. Phimosis, with gangrene. Went out thirtieth Thermidor, completely *cured*. Fifteen ounces six drachms of acid.

Robin, twenty-eighth Floréal. Blennorrhagia and phimosis. Went out third Fructidor, completely *cured*. Twenty-seven ounces two drachms of acid.

Leroi, twenty-seventh Prairial. Many warts on the glans. Went out twelfth Messidor. Came again some days after, with a small wart on the spot where the others were. Sixteen ounces of acid.

Facdonet, thirtieth Prairial. Chancre, phimosis, and bubo. Went out eleventh Vendémiaire almost *cured*. Forty-two ounces six drachms.

Lévêque, twenty-eighth Floréal. Ulcerated pustules, chancres. Went out twenty-fifth Messidor, reputed *cured*. Eighteen ounces five drachms.

Returned, eighteen Thermidor, with the same symptoms, and went out twenty-ninth Vendémiaire, *cured*, without a relapse. Two ounces fifty-eight grains of super-oxygenated muriate of potash.

Francois, first Thermidor. Chancre on the frænum. Went out third Brumaire, with some pustules which made the cure doubtful. Thirty-two ounces one drachm of the ointment.

Dubois, ninth Messidor. Blennorrhagia, warts. Went out, twentieth Vendémiaire, with some little warts on the glans. Twenty-eight ounces six drachms.

Jaspin, twentieth Messidor. Phimosis, pustules on the scrotum, and swelling in the groin. Went out twenty-third Vendémiaire not *cured*. Thirty-five ounces seven drachms.

N. B. Entered the first Brumaire into the hospital for syphilitic patients, with chancres on his tongue and the corners of the lips, and pustules round the anus.

Ponce, eighteenth Floréal. Bubo, phimosis, blennorrhagia. Went out, tenth Vendémiaire, having still a swelling in each groin, and an oozing from the right side. Returned to the hospital twenty days after, with the same symptoms, and some condylomata, of which he was cured by mercury. Took without effect thirty-six ounces three drachms of nitric acid, and six ounces seven drachms of super-oxygenated muriate of potash.

Bruant, fifteenth Fructidor. Herpetic crusts.

Went out thirteenth Vendémiaire, *cured* ; but still with little chaps on very thin cicatrices. Eighteen ounces of nitric acid, sixteen of the ointment.

Mennier, twenty-eighth Floreal. A corroding ulcer in the throat. Went out thirtieth Messidor, reputed *cured*. Returned for the same symptom, the twentieth Thermidor, and went out thirteenth Brumaire, reputed *cured*, though some traces of suppuration remained in the pharynx.

N. B. All these patients may be divided into three classes : the cured, the doubtful, the uncured (by means of oxygenated medicines.) Seven in the first, the same in the second, and twelve in the third.

Being one of the first who heard of the discovery of Mr. Scott, and of the experiments made in England, and having followed with attention those just mentioned at Paris, I determined to make some attempts myself with oxygenated substances.

My first essays were with oxygenated ointment, in two cases of primitive ulcers on the glans and prepuce, and in a third similar case, with a saturated solution of oxymuriate of potash applied externally. In these three cases, the ulcers were recent ; and they were quickly cured without any other medicine external or internal.

Thus encouraged, I began to employ internally, the nitric acid, and the oxymuriate of potash, both diluted with a great quantity of water, in the primitive and secondary symptoms of the disease.

In all my experiments I used the pure nitric acid of twenty degrees. I always began by forty or fifty drops of acid in two pounds of distilled water ; and in no case did I ever raise the dose above 120 or 130 drops a-day.

With the oxymuriate of potash, I began with the dose of twenty grains every day, in two pounds of distilled water ; gradually augmenting to thirty, and even forty grains, and in two cases only to fifty grains a-day.

I gave these medicines to as many patients as my private practice allowed. According to my journal, I found that I had nearly the same results as those of the School of Medicine ; namely, about a fourth cured, another doubtful, and the two remaining fourths without any amelioration, and in some, on the contrary, even with pernicious effects.

In women, and irritable persons, the nitric acid always produced colics more or less violent.

Not to extend this chapter too far, I shall now merely select, from my own private medical journal, three or four principal cases, in which the oxygenated medicines completely failed.

A captain of a vessel, a man of a strong constitution, had been subject for several years to what he called rheumatic pains in his thighs and arms, for which he had taken a great number of medicines with hardly any success. The complaint for which he consulted me, was an eruption all over the hairy scalp, but parti-

cularly round the ears, which formed excoriations and crusts of a very disagreeable appearance; he complained at the same time of vague pains in different parts of his body. He confessed that he had had several syphilitic complaints, of which he had thought himself cured with pills, and other mercurial preparations, and among the rest, the corrosive sublimate, commonly called the liquor of Van Swieten. I proposed to him the nitric acid in water, with a suitable diet. He began by sixty drops in two pounds of distilled water; and the dose was gradually increased, in the course of six weeks, to two drachms and a half of nitric acid a-day. During the use of this medicine, he complained, particularly during the first fortnight, of colic in the day, and pains in the night, chiefly in both knees. After this, the colic went off, and the nightly pains changed into vague pains in different parts of the body. The twentieth day a general eruption appeared all over the body, in the form of syphilitic spots and pustules; and the eruption on the scalp, and about the ears, increased at the same time. Nevertheless, after much pressing on my side, he continued the nitric acid for several weeks. But then, perceiving no diminution in his complaint, he refused to continue the medicine, or to take any other of any sort. I had quite lost sight of him, when near a year after I met him by chance in the street. He seemed quite well, and informed me that his old complaint

had stuck by him for several months after I had left him ; and that the eruption on the scalp and round the ears had increased very much, extending to his forehead, and *other* parts, when a friend advised him to go through a complete mercurial course by frictions ; on which he determined at last, and having continued them for three weeks, his disorder gradually diminished, and at length disappeared entirely, and that for two or three months past he had been perfectly well.

A young woman of four-and-twenty, of a delicate constitution, had the misfortune to get ulcers in the vagina from a man who was about to marry her, and to become pregnant at the same time. A surgeon advised mercurial frictions, which removed the ulcers, but she was delivered of a dead child. Some time after an eruption broke out in her face, which was attributed to her milk, and several remedies were prescribed. It went off, and soon after she had ulcers in her leg, on the tibia and knee, for which the same surgeon ordered mercurial pills ; the ulcers healed, and she left off the pills. Some time after she felt a sore throat, which went off by the use of gargles and purgatives ; but soon after there appeared fresh ulcers in the leg. She observed, that when, by the use of external remedies, the ulcers disappeared, the throat was affected, and *vice versâ*. At length, the complaint seemed to fix itself in the throat and nose. She was

then advised to use mercurial frictions, which were continued till a salivation came on, and she felt no more of her sore throat. Thinking herself radically cured, she left off the frictions; but, some time after, the ulcers in the throat appeared again. She took mercury again internally with decoctions. The weather being very severe, a fresh salivation came on, and she was in this state when I was consulted. She spoke strongly through her nose, and I found several scars in the tonsils and palate, and the uvula half gone, but the worst was the pharynx. A large ulcer occupied the whole space between the Eustachian tubes, and had reached the orifice of one. The patient swallowed with difficulty, and was in a great state of weakness. She complained very much of a pain across the stomach and breast, and in the inside of her nose, in her ears and head.

I began by giving her the nitric acid internally with water, and the oxymuriate of potash as a gargle, in the dose of twenty grains to a pound of water. I increased the nitric acid gradually from fifty to a hundred drops a-day.

After fifteen days there was not the least sign of amendment; on the contrary, the pains became more violent, the ulcer enlarged, and swallowing was more painful. Both liquids and solids that she took coming back by the nose, I discontinued the nitric acid, and employed opium. I began by twenty drops of liquid laudanum, increasing the dose by twenty drops

every day ; when it came to eighty, the patient felt better ; but at 120 she felt sick at stomach, and stupified day and night. The ulcer in the throat, however, continued the same. At the end of a fortnight, therefore, I gave up the opium, and returned to the oxygenated medicines ; but instead of the nitric acid, to begin, I made her take four grains of oxymuriate of potash in the morning, and the same at night, in distilled water. The first dose of this salt produced a colic, which, after the second dose, became very violent with tenesmus, and lasted all day.

I advised the patient to take thirty drops of tincture of opium every night, and to continue the four grains of oxymuriate of potash four times a-day. Four days after, the ulcer increasing considerably in breadth and depth, made it very difficult for her even to swallow the milk which, for ten or twelve days past, had been her principal nourishment. Nevertheless, I ordered her to continue, and even to augment the salt to five grains, four times a-day, with thirty drops of laudanum every night.

After having continued this for ten days, she was sensibly better. She, consequently, continued the medicines ; but six days after, she complained that swallowing was more difficult than ever ; her tongue was very much furred, and the ulcer was covered with a white lardaceous crust. I then began to touch the ulcer every day with a saturated solution of oxymuriate of potash in distilled water. In ten days, the

white crust of the ulcer separated in part; but the next day it formed again.

By gradually increasing the dose, we had now come to forty grains of oxymuriate of potash a-day. It was six weeks since she had begun it; and still the ulcer was covered with a thick white crust, and the difficulty of swallowing was greater than ever. In this state, I touched the ulcer with the oxymuriate of antimony, and increased the dose of the oxymuriate of potash to forty-five grains a-day. In five days all the symptoms increased to such a degree, that I began to fear for the life of the patient. The ulcer was considerably enlarged, the difficulty of swallowing complete, the pain of the head and ears most violent; and she was so weak, she could not get out of bed. Her pulse was quick and low, and her life in evident danger.

In this state of things, I should have blamed myself for continuing any longer the oxygenated medicines; and reflecting on the means still left for saving the life of the patient, I saw nothing but mercury. I therefore ordered her to rub the inside of her cheeks and her gums every night with four grains of the submuriate of mercury prepared by precipitation. On the third day she began to feel better. In seven days she was much better; but the ulcer was nearly in the same state. But by continuing the frictions regularly, I observed, on the sixteenth day, for the first time, that the ulcer became cleaner, and a little redder; the swal-

lowing was easier ; she slept well, and began to have a little appetite. The gums began to swell, on which I discontinued the frictions for two or three days, but ordered her still to gargle her throat with the *lotio syph. lutea*, (Ph. Syph.) The ulcer in the throat had a much better appearance, and began to diminish ; but the pain at the basis of the cranium, behind the veil of the palate, continued to torment her. I made her resume the frictions, and prescribed at the same time a drachm of sarsaparilla in powder, twice a day, in milk or broth.

She continued this regimen for a whole month, when the symptoms gradually diminished, and from being quite exhausted, she began to recover strength. She continued the regimen and medicines for another month. From time to time she complained of a pain in her ear, on the side where the orifice of the Eustachian tube had been corroded, and she was almost deaf. However, the ulcer continued to ameliorate. At the end of the month, her menses came on after an interruption of two years. And her gums and teeth began to be affected again by the frictions. The ulcer was not yet healed. I prescribed, instead of frictions, the pills *ex hydrargyro mellito*, the powder of sarsaparilla to be continued, and injections of the *lotio syph. lutea* into the throat, twice a-day. Continuing thus, at the end of three weeks the ulcer was cicatrised. I then ordered the frictions in the mouth to be renewed, and the decoction of sarsaparilla, with an equal quantity of milk, and

to continue it for twelve or fifteen days. I saw her a year and a half after this, and she was perfectly well.

A young man, twenty-two years old, perceived three ulcers on the internal surface of the prepuce. Eight days after, when I saw him, they were covered with a thick and white crust. I gave him the oxymuriate of potash, twenty grains a-day, internally, and advised him to wash the ulcers with a solution of acetate of lead in water. Four days after he had a phimosi and fever, and his tongue was furred. The ulcers seemed to spread; and four days after I perceived a new one at the orifice of the urethra. Nevertheless, he was taking forty grains of the salt a day. I made him increase it to fifty. But the ulcers continued to advance so much, that four days after I was obliged to give up this medicine, not only on account of the non-improvement of the ulcers, but also on account of the general symptoms of fever. The patient had taken in all an ounce of salt. I then made him rub the prepuce with mercurial ointment. The phimosi diminished in a few days, so as to discover the glans. I then saw an ulcer near the *frenum*, and two others on the interior surface of the prepuce; the glans opposite them was ulcerated; the ulcer was covered with a white crust, and extended to the orifice of the urethra. I made him take the gummy oxyde of mercury internally. In six days, the state of these ulcers was visibly

ameliorated, and having continued the same remedies for three weeks, he was perfectly cured.

In this example of primitive syphilitic ulcers, the oxygen contained in the oxymuriate of potash, though given in large doses, and long continued, did not better the situation of the patient in the least.

In the first of these two cases, it is very remarkable, that the oxygenated medicines, though given in such strong doses, produced no phlogistic symptom, no increase of the action of the arterial system; on the contrary, the weakness increased rapidly, and would have brought the patient to the grave, from which she was clearly and even quickly saved by the mercurial frictions in the mouth.

A man thirty years old, of a healthy constitution, got a blennorrhagia, which in eighteen days after was nearly well, when he perceived on the edge of the prepuce an ulcer which seemed the continuation of another seated lower down; for this could only be conjectured, as he had a natural phimosis. I drest the ulcer on the edge of the prepuce with the red oxyde of mercury. The 27th day it was almost cicatrised, but the discharge of matter from the prepuce evidently proved the existence of another ulcer under the prepuce. I made him take nitric acid dissolved in water for eighteen days, and made him inject a light solution of acetate of lead between the prepuce and glans, three or four times a day.

The discharge diminished so much, that he thought himself almost cured, when 12 days after he perceived a periostosis on the tibia, and a sore throat which he at first took for a catarrh: but three days after, having examined it, I perceived that it was evidently syphilitic. The veil of the palate and the tonsils were much swelled and very red, and a hole was already formed in the right portion of the veil. I ordered a complete mercurial course, by which the symptoms began to diminish; and by continuing it for six weeks, he was at length radically cured.

From these experiments and observations combined, there is no doubt that oxygenated medicines act with great energy on the human body, and may be used with great advantage in several diseases. But on the other hand, it appears, that whatever efficacy they may have shown in the hot climates, or in the cold or temperate climates of Europe, particularly in some primitive affections, they can by no means be depended upon for the cure of primitive syphilitic complaints in general, and still less for a radical cure of secondary symptoms, or syphilis properly so called. For experiments made with all possible precision, and followed with a rigorous, regular, and constant attention, convinced me, that oxygenated medicines, administered internally and externally, though they cured in several cases the original ulcers of the genitals, produced no marked effect either on the buboes or blennorrhagias; and that in general, their effects on the virus, when it affects the system,

were null, or too precarious to depend upon. In thus giving my opinion on these medicines, I always speak of our temperate or cold climates, without any intention of prejudging their effects in hot climates. It is the enlightened physicians of Spain, Africa, India, &c. who must determine to what degree their effects are (perhaps) different there, from what is observed with us.

The same oxygenated medicines may probably be employed with great advantage in several cases which frequently occur in practice, in which mercury cannot be given without inconvenience, or without exposing the life of the patient; it is particularly when syphilis is complicated with scurvy, or when the patient is very feeble, that they deserve a trial in warm countries, before any mercury is given; and they may probably afford great relief to suffering humanity in such countries as Sennaar, where, according to Bruce, syphilitic complaints, which are very common, grow worse by the use of mercury, instead of being relieved. But it is not by reasoning, that the virtue of medicines can be established; it is by faithful observations, and certain facts, that we learn the real effects of these medicines on the body. Philosophical physicians must repeat and vary these experiments with new remedies, in different parts of the world, carefully noticing their results, with all the circumstances in which they employed them, the age of the patient, his constitution, his preceding complaints, the actual state of his

health; the characteristic symptoms of the syphilitic complaints that he had ; whether it was a primitive or secondary infection ; if he has used mercury or other remedies before ; and if the symptoms, when dispelled, do not return some weeks or months afterwards.

SECT. II. — OF DIVERS OTHER NON-MERCURIAL
REMEDIES RECOMMENDED FOR SYPHILIS.

BESIDES the internal or external use of the different mercurial preparations, and the oxygenated medicines, many others have been recommended and tried either to cure syphilitic complaints without mercury, or to assist its operation.

It appears from the most ancient authors who have written on the use of mercury in this disease, that it was soon perceived, that mercury, as now, was liable in several cases to produce disagreeable or dangerous symptoms during the use of it, or that it left serious and troublesome effects after the cure ; or else, that there were many examples where it failed altogether. It was therefore dreaded, and from the beginning, a medicine was sought, which, without any of the hurtful qualities of the mercury, might possess all its virtues.

In this section, I shall speak first of the medicines which have been recommended or used to aid the mercury in its operation, to

make its action on the virus more powerful and certain, or to hinder its bad effects on the stomach, or the system. I shall afterwards discuss the different other remedies which have been recommended and extolled for curing the disease alone, and without mercury.

I shall not here treat of the various remedies required in syphilis complicated with other diseases, having already mentioned them in chap. ix.

Several vegetables, among which particularly are the *Guaiacum officinale*, the *Smilax sarsaparilla*, the *Smilax china*, *Laurus sassafras*, &c. which were employed soon after the discovery of mercurial remedies, are still administered with success in many cases, along with mercury, either as a suitable vehicle for carrying and distributing it through the blood, or to determine it, after it has produced its effect to the skin, and, by thus driving it out of the body, to avoid the accidents one would have reason to fear if it remained.

Different parts of these plants are used principally in powder or decoction. Sarsaparilla, though without any apparent medical qualities, has maintained its reputation more than all the others; and from very exact and strict observations, particularly in St. Thomas's Hospital, it may be used with advantage either with the mercury, or after it is discontinued, in order to complete the cure. A drachm of the powder may be given several times a-day, or the decoction. See *Decoctum Smilax sarsaparillæ*. *Decoct.*

*smilax sarsap. correctius. Decoct. sars. cum mezereo. Ph. Syph.**

Next to mercury, guaiacum is the oldest remedy that has been used for the cure of the syphilitic disease. It was brought into Europe in 1517; and after having cured a great number of patients, and particularly the celebrated *Van Hutten*, it acquired such fame, that for some time mercury was almost given up; but it soon recovered its prerogatives, and we by no means depend at present on that vegetable alone, particularly in our climates, for a radical cure; but the wood and gum-resin are often used with advantage, in decoction or tincture, together with the mercury. See *Decoctum Guajaci officinalis. Ph. Syph.*

Another method, not less useful in many cases, is to combine mercury with *opium*. Many patients cannot take the mercurial oxydes or salts, without feeling pains in the stomach, colics, diarrhoeas, &c. In other cases, there is a morbid irritability in the affected parts, or in the body in general, which forbids the use of mercury, and renders it dangerous or inefficacious: in all these cases, opium is often an excellent auxiliary. But it is not only in these circumstances that opium is useful, it often cures

* It has not hitherto been satisfactorily ascertained, whether the male and female plant of sarsaparilla have the same medical qualities, nor whether the roots brought from Virginia, Mexico, and the Honduras, have the same virtues as those imported from Quito or the Brazils.

ulcers, which have resisted a complete mercurial course. It was employed of old for the cure of syphilis, but the discovery of its efficacy in these last cases was owing to the sagacity of my friend *Dr. Nooth*, and deserves a place here.

A student of medicine, in London, had been tormented for a long time with the most unpleasant syphilitic symptoms, and particularly with ulcers in the throat of a very bad character. A complete mercurial course had been tried in vain. The want of sleep, and despair of the patient, gave reason to fear his falling into a complete state of exhaustion. In these unfortunate circumstances, somebody advised him to try opium, rather with a view of relieving his sufferings, than from the hope of any benefit. He began with a grain, and successively increased the dose. His sleep returned, he gained strength, the ulcers assumed a better appearance, the pains relaxed, and all the other symptoms abated; in short, in a very little time, the state of the patient was as good as it was deplorable before, and he was entirely cured.

Recollecting this singular case, several years after, *Dr. Nooth*, then inspector-general of the English military hospitals in America, advised new trials to be made with this remedy; and for this purpose, patients were selected, as much as possible, with symptoms analogous to those of the patient above-mentioned. Many had taken mercury in vain; others were under a mercurial course, without any amendment; others, had

taken no mercury at all. A grain of opium was given at first, and gradually increased to five, and in some cases to eight grains a-day, and even more. In this quantity it did not seem to induce sleep, but produced a certain state of ease, and calmed all painful sensations. A change for the better appeared in a few days. The hardness and inflammation of the tumours diminished, the pus became better, and the ulcers took a benign character. The opium was continued, with the satisfaction of seeing the patients delivered from all their syphilitic complaints, (even much sooner than could have been hoped,) and their ulcers radically cured.

It is proper to remark, that notwithstanding the use of the opium, the patients had almost always their bowels open, and even those who took as much as ten or fifteen grains a-day. If by chance the stools were stopped, a small dose of salts was sufficient to regulate the body.

These experiments were repeated in London, and particularly in the hospital at Edinburgh, in nearly similar circumstances, and the result was, 1°. that opium given with mercury often cured bad syphilitic ulcers much sooner than mercury alone; 2°. that opium often cured such ulcers, particularly in the throat, after a complete course of mercury had been tried without success; 3°. that opium ameliorated the state of syphilitic ulcers without mercury, but that in no case did it cure them radically, as far as could be perceived, unless the patient had taken mercury

before he came to the hospital, where they found it necessary to combine it with opium to produce a cure.

There are other cases when, during or after a mercurial course, opium may be used successfully with iron. I have pointed out at the end of this chapter, the other medicines which have been found most efficacious in cases where mercury has failed.

Mr. Birch has observed, that electric sparks, or simple electric frictions, (the patient being insulated,) every day during a mercurial course, made the action of the mercury much more powerful, by determining its action principally towards the parts affected with local symptoms.

Many authors have recommended mercury combined with bark in certain circumstances, and particularly when there is a great degree of irritability or weakness. But we now know, from the discovery of *Berthollet*, that the astringent principle of vegetables, and principally of the bark of the *Cinchona officinalis*, decomposes the mercurial and antimonial oxydes in the stomach, by uniting with the oxygen, and renders them completely inert. Thus, the practitioner, who meant to make the mercurial course more complete, and the patient likewise are miserably deceived. The disease obstinately resists the combination, or disappears only to come on again with greater force.

It is to this mistake or ignorance of the reciprocal decomposition of mercury and bark, that

many patients probably owe their lives. For I see every day examples of weak and very delicate persons of both sexes, to whom ignorant practitioners prescribe, and sometimes in very large doses, the corrosive sublimate with a decoction of bark, certainly without curing the syphilis thoroughly, but at the same time, without occasioning those grave and dangerous symptoms which that acrid medicine would certainly produce, if given alone and without that decoction. Thus, it is often to a double error of the ignorant practitioner that the poor patient owes his preservation.

The last, and one of the most efficacious means that can be added to mercury, to render it less dangerous and more certain, is warm baths, or, according to circumstances, vapour baths. The latter, in warm climates, are even sufficient alone, to stop and relieve the disease without mercury. I shall mention them again more amply at the end of the chapter.

As to warm baths, I have already given the rules and precautions for their application. I shall, therefore, only make here some physical remarks on this remedy, and on the general opinions concerning its effects on the body.

First, it is very certain that the additional application of a mild heat to the surface of the body, by the means of a bath, excites the vessels and excretory conduits of the cutaneous glands, and consequently increases their secretion, at the same time that it produces an agree-

able sensation, and cleans the skin. But to produce these effects, the bath must not be below the 96° or 97° of Fahrenheit. If the bath be below the heat of the body, it does not produce the effect of a warm but of a cold bath. Warm baths, of this temperature, neither relax nor weaken, as most patients and even many practitioners imagine; but the patient must not abuse them, nor go to bed after them, for then they excite sweat. On the contrary, they produce a certain vigour, and a feeling of energy and activity in the system, as any body knows who has taken a warm bath properly managed on a very hot summer's day. From being exhausted and overcome before the bath, one feels light and vigorous after it; but there is no doubt, that, like other things, it may be abused so as to become prejudicial. The fear of catching cold after a warm bath seems to me to be founded on a prejudice, because we are accustomed to call warm baths what are rather lukewarm or cold, or because the body is not properly cloathed on leaving the bath. The weakness or relaxation so much complained of, are not owing to warm baths, but because patients go to bed, or cover themselves too warm after them, particularly by putting on flannel waistcoats next the skin, which, producing a great perspiration, always weakens the body.

Besides the effect of warm baths on the surface of the body, another not less remarkable, and equally beneficial one, is the absorption of a

considerable portion of water into the blood. It is on this virtue of the absorbent vessels of the lymphatic system, that not only the effects of medicated baths depend, but also of many other external applications on the surface of the body, which produce very quick and surprising effects on the system, even death : bark, alcohol, tobacco, opium, squills, the antimonial tartrate of potash, &c. afford evident proofs of it, notwithstanding all that has been recently advanced by some writers against the *system* of cutaneous absorption.

SECTION III.

As there are many examples of cases in which mercury fails to cure, or in which patients cannot bear it without exposing themselves to unpleasant accidents, a remedy has long been sought possessing all its virtues without any of its baneful qualities. I have taken the trouble to analyse a great number of secret remedies or *arcana* extolled for the cure of syphilis, and which are often announced as simple vegetable preparations; and I found that most of them were nothing but mercurial preparations, disguised with a vegetable decoction or syrup.

We have seen, in the first section of this chapter, what is my opinion of oxygenated medicines; I consider them as insufficient, at least in our climates, and particularly in syphilis proper-

ly so called. But they deserve a trial in all cases where mercury fails, and principally in several complicated syphilitic complaints. They might also be used perhaps with advantage in several cases together with mercury.

Several remedies have been proposed instead of mercury, which were employed after the use of mercury was known, and which, from testimonies worthy of credit, are still used with the greatest success in North and South America. I have seen them prepared with the greatest care, and given in very strong doses, in Europe, without ever producing the desired effect, at least in any case which I could examine and follow completely : nor do I know a single instance of confirmed syphilis being cured by them alone, so as to say positively that mercury had no part in the cure. For in all such cases that happened in my practice, the patients had taken mercury before they had recourse to those medicines, or else were obliged to use it some time after ; because the syphilis not being radically cured, had appeared again after the patient had thought himself entirely freed by those remedies ; and I think, that in our temperate or cold climates, we cannot rely on any of them alone, for the radical cure of a confirmed syphilis, without a previous or subsequent use of mercury.

Besides the remedies just mentioned, there are several others worthy of attention, and which certainly deserve more attentive trials than have hitherto been made to ascertain their virtues. I

have given a pretty complete list of them at the end of this chapter.

In South America, and in India, the decoctions of guaiacum, sassafras, and sarsaparilla, and smilax china, are extolled as remedies sufficient alone to cure with ease the most confirmed syphilis. These substances may possibly cure syphilitic diseases between the tropics, and in hot climates; but in the colder climates of Europe, I have never seen a single case in which they performed a radical cure without mercury.

See the list of medicines that have come to my knowledge at the end of the chapter.

It is said, that at Guatemala, in America, and in Spain, ulcers and syphilitic complaints of the skin have been cured by the means of little lizards, called *Anolis de Terre*. After having taken off the skin and entrails, and cut off the head and tail, one of them is swallowed raw every morning fasting.

The Hindoos employ the juice of a sort of euphorbia, mixed with the flour of Indian maize, in pills, which they consider very efficacious in this disorder.

I have heard from a respectable person, who was a long time in India, that the Malay doctors, who transmit their knowledge from family to family, when a patient is put under their care, always examine above all, if the complaint be really syphilitic, or not rather mercurial, and if the mercury is not lodged perhaps in some part of the body. They ascertain this by a method which they

keep secret. Having verified this point, they give the patient a decoction of herbs, which they prepare themselves, and which produces violent pains in every part of the body, followed by a swelling of the face, and successively of the arms, breast, belly, thighs, and legs, descending finally, and fixing in the extremities of the feet, where it occasions the most violent pains. They then prepare a warm bath with herbs, in which they place the patient, and pretend that the mercury, which was accumulated in his body, goes out by these means, and falls to the bottom of the bath. At the same time the patient is completely cured of his pains, and all other complaints. The valet of my friend, who was affected with a very serious ophthalmia, arising from a suppressed blennorrhagia, for which the European surgeons had given him a great deal of mercury without effect, was thus cured quickly and radically.

According to *Hornemann*, the inhabitants of *Fezzan* have no other method of curing syphilis, (there called *franzi*,) than by the use of salts, and the *handal*, (*pulpa cucumis-colocynthydis*); they wash the ulcers with a solution of nitre; and these remedies in general effect a cure, unless the disease be very inveterate.

The inhabitants of Morocco merely employ, for curing syphilitic complaints, a vegetable diet and the decoction of sarsaparilla for forty days. At the same time they use warm baths to excite abundant sweats. By this means, the

disease seems rather palliated than cured; but in general they do not suffer near so much as the inhabitants of Europe, keeping it thus often during the rest of their days without a radical cure: nevertheless, they suffer also severely, sometimes from pains and ulcers, and many even lose their noses. For blennorrhagias they apply coloquintida as a topic, but in what manner is unknown to me, and use at the same time diuretic decoctions, and thus perform a speedy cure. See Jackson's Account of Morocco, 4to. London.

Marsden relates, in his History of Sumatra, that the Malays cure themselves of the syphilitic disease with a decoction of the root of the *smilax china*; and he adds this curious fact, that this remedy often produces salivation there, which it never does in Europe, to my knowledge.

Bruce, in his Travels in Abyssinia, says, that syphilitic complaints are very common at Senaar, but never bad enough in either sex to prevent marriage. Sweating and abstinence, says he, are sufficient to cure them, however inveterate. On the contrary, he adds, what is very remarkable, that mercury irritates and does not cure them.

In Europe, as I have before observed, the decoction of guaiacum is sometimes employed with advantage, which, for that reason, has been called *lignum sanctum*; and the famous Van Hutten, a martyr to this disease, says, that he

cured himself radically with this decoction, after having tried a great many other remedies in vain. It is said, that all the parts of the tree, the gum resin which distils from it, the flowers, leaves, &c. have the same virtue as the wood.

The medical virtues of sarsaparilla, though it has hardly any smell or taste, have been confirmed by the first physicians in Europe: it is, however, never given alone, but together with mercury, or after a fruitless trial of it. It is given in powder to the quantity of two or three drachms, or in decoction, three or four times a day. The decoction is very useful, particularly after mercury has been taken for some time.

I saw a patient in London, who, being affected with syphilitic ulcers rebellious to mercury, was cured, as I was informed, in the following manner: A pound of sarsaparilla was put in a furnace to be torrifed; and after having divided the powder into three parts, he was ordered to swallow one a day. The person who told me this fact said, that several patients, in similar circumstances, had been cured in the same manner.

Some years ago, the decoction, or extract of *saponaria officinalis*, was recommended in blennorrhagias, and ulcers of the throat, and other syphilitic affections rebellious to mercury: half an ounce is given in pills, or two or three pounds of the decoction internally, and the

patient gargles with the same eight or ten times a day.

I have mentioned the experiments and effects of opium, observed by *Dr. Nooth*, and I here add, that it has also been used with success, dissolved in water or alcohol, and applied externally. The extract of hemlock (*conium maculatum*) has since been recommended, in large doses, probably with the same view, externally and internally. In desperate cases, the same extract has also been given with the yellow hydro-sulphuret of antimony, fifteen grains of each a-day.

Dr. Peyrile proposed, some years ago, to employ the volatile alkali in preference to mercury. This is the salt which enters, in considerable quantity, into the syrup sold in London by the name of *Velno's Vegetable Syrup*.

In short, *Dr. Chretien* *, of Montpellier, has lately recommended the muriate of gold as a new anti-syphilitic medicine preferable to mercury, and all other known remedies; but repeated trials made in Sweden seem not to confirm its efficacy.

I have mentioned already, that the celebrated Theophrastus Paracelsus, in the beginning of the 16th century, had already recommended a composition of gold combined with the corrosive sublimate.

I have known several cases of patients treated

* *De la Methode Clatraleptique*, 8vo. Paris, 1811.

for a long time, and without success, with mercury, who were cured by the decoction of sarsaparilla, in the quantity of two pounds of decoction a-day, to which was added a drachm of carbonate of soda. In London, it was found that the internal use of liquid carbonate of potash, from twenty to thirty drops a-day, produced excellent effects in obstinate ulcers, for which mercury, and many other boasted medicines, had been tried in vain.

Dr. Winterl, professor of botany, at *Buda*, in *Hungary*, discovered, some years ago, that the inhabitants of the confines of Turkey use with great success, like a domestic medicine, a decoction of the root of the *astragalus exscapus*, in all degrees of different syphilitic disorders.

Dr. Quarin, of Vienna, prepared a decoction with half an ounce of the root in a pound and a half of water, reduced by boiling to one pound, which he gave lukewarm, morning and evening. He tried it in four cases, and says it succeeded in each, without any other remedy. The first patient was a woman, attacked with vague pains, and ulcerated exostoses, (*Arthritide et tophis exulceratis laborans.*) She was cured in four weeks. The first week, the decoction produced six or seven stools a day; the three following weeks, they were less frequent; but the sweats and urine increased. The second was also a woman affected with several exostoses; she was cured in five weeks. The third patient was attacked with syphilitic

herpes and ulcers, and rheumatic pains ; he was cured in six weeks, and in the same manner ; that is, at first he had diarrhœa, and afterwards the urine and sweats increased. The fourth was a young man attacked with two buboes, very large and hard ; he was cured in three weeks, by sweats and great evacuations of urine, but without diarrhœa. This remedy appears to be a great acquisition to medicine, if its effects are confirmed by further experiments.

In Sweden, the decoction of *chærophyllyum sylvestre* has lately been recommended for syphilis.

In some cases, where mercury had failed of the desired effect I have used the decoction of green walnut-shells, or an extract of that substance dissolved in water. It was said, some years ago, that the principal ingredient of the famous decoction of *Dr. Pollini* was the green walnut-shells ; but I have ascertained, from certain information, and by direct experiments, that this is not the case. Vide supra, chap. xi.

To conclude, in several desperate cases of syphilis, a metasyncrisis, or a partial or total change of the habit of the body, has been tried in desperate cases. The late professor *Winslow*, of *Copenhagen*, has for several years employed this method with most remarkable success, in eruptions and chronic ulcers, and in violent pains produced by the virus, which were incurable by mercury, and different other remedies.

Instead of any other food, the patient takes

for his dinner two ounces of meat, boiled or roast, with an equal quantity of bread, and the same for supper ; his only drink is a decoction of two ounces of sarsaparilla, well bruised in a mortar, and boiled with five pounds of water, reduced to half. At the same time he takes six grains of hemlock (*conium maculatum*) in the morning, and six at night. This course must be continued for six weeks to obtain a radical cure.

Belet's syrup, which many consider as a composition purely vegetable, contains nitrate of mercury, as Bayen has demonstrated by an exact analysis. But as it was long kept a secret its composition varies in different shops. This syrup is a mixture, composed, in general, with the red oxyde of mercury, the acetic acid, the nitric acid, alcohol, and syrup. Some omit the acetic acid. It is sometimes prepared by solution, at others by simple digestion. There is also a great difference in the proportions of acid. A formula has lately been published as the best preparation, or the corrected composition of this syrup. It is advised to dissolve the mercury in nitric acid, to add the alcohol to this solution ; and after a digestion of some days to mix the syrup. We owe the exact knowledge of the different formulæ, by which this remedy is prepared, to *Bouillon Lagrange*, who published them in the *Annales de Chimie*, tome xxix. p. 162. The author observes, like an enlightened chemist, that when prepared by distillation it contains no mercury. In fact, the mercury

precipitated by the alcohol from its acetic and nitric solution, remains at the bottom of the vessel; and if prepared by digestion, it falls equally to the bottom of the bottle; so that if the patient takes the whole, the last draughts will contain all the mercury, partly in the state of oxyde, partly nitrate of mercury, which makes a very copious precipitate in the bottle. If the reposed liquid is decanted, it contains no mercury, as *Bayen* first demonstrated: it is, therefore, in all respects, a bad preparation, which no enlightened physician would ever employ. There is no doubt, considering the great use which many French physicians make of it, even some who enjoy a great reputation, that the many incomplete cures one meets with are owing to the carelessness with which a remedy is prescribed, of which, from want of chemical knowledge, the composition is unknown, and which contains no mercury at all, or a portion of an acrid mercurial salt, so great, that the patient cannot continue the use of it long enough for a radical cure. That quacks, or old women, should advise such remedies, is not surprising; but that physicians or surgeons, who pretend to know their profession scientifically, and who are in vogue, should make use of such drugs, such absurd mixtures, inefficacious, or even dangerous, is shameful and deplorable. I think, therefore, with Lagrange, that it is very difficult, not to say impossible, to prepare a mercurial syrup with the nitrate of

mercury and alcohol, without decomposing that salt, and that all such mixtures must be considered as medicines which quacks extol, but which a conscientious practitioner would have nothing to do with. This is probably the reason why several apothecaries at Paris now sell instead of *Belet's* syrup, the sirop de cuisiniere, (the *Cook's Syrup*,) a composition prepared as follows, and in which for the nitrate of mercury they substitute a certain quantity of corrosive sublimate, so that the patient does not take above a quarter of a grain, or at most half a grain of that salt a-day.

Take thirty ounces of sarsaparilla; infuse them for twenty-four hours in twenty-two pounds and a half of spring water; reduce them by boiling to seven pounds and a half; repeat this operation three times, taking care always to decant each time the seven pounds and a half of water, and to add fresh. Make these three waters or united decoctions boil again, adding burrage flowers, white roses, and the leaves of senna and aniseed, each two drachms, till half is diminished, and dissolve in it from four to six grains of oxymuriate of mercury. Having poured off this decoction, add two pounds of sugar and the same of honey; make a syrup sufficient for nine days; each ninth of the whole being separated into three potions, which the patient will take at seven, at ten in the morning, and at five in the evening. The patient should also drink every day, if possible, six pounds of water,

in which have been boiled six drachms of sarsaparilla, which is to be his common drink. During the nine days the syrup is used, the patient must remain in bed ; for thirty-one days more he will continue the syrup with the decoction of sarsaparilla ; he may go out if it is fine, taking care to be home before sun-set. During the forty days, the patient must eat nothing for dinner but rice soup, with roast fowl or veal, without pepper or salt, and the supper the same. This medicine operates by sweats, urine, or stools.

Mr. Besnard, physician to the KING OF BAVARIA, has lately recommended a new remedy for curing syphilitic diseases without mercury, by the name of the *Tinctura antisiphilitica*. The following is the composition of this medicine :

- R. Salt of tartar purified - one pound.
- Simple cinnamon water - one pound.
- Opium very pure - two ounces.
- Spirits of cinnamon - four ounces.

Dissolve them separately, then mix the solutions, and put them on a *bain marie* for three weeks, taking care to shake it often.

- Gum arabic picked - two ounces.
- Volatile alkali - . . - one ounce.

Dissolve them in cinnamon-water, six ounces.

These different solutions being mixed, leave the whole in a vessel well closed for some days without touching it ; then filter it, and keep it for use.

Dose. Twenty-four drops three times a day

in a small glass of the cold decoction of marsh-mallow root.

At the same time he recommends the external use of these drops for all external syphilitic complaints.

To conclude, for many years past, a composition, announced in France under the name of *Rob antisymphilitique*, has been much extolled in Paris, and the sale of it is pasted on the walls in Paris, sometimes with the name of *L'affecteur* alone, at others with the pompous addition of *medecin-chimiste*.

The principal ingredient in this medicine is the bulrush (*Arundo phragmitis*), of which a strong decoction is made, with the addition of sarsaparilla, and aniseed towards the end; then with honey or sugar, this decoction reduced is made into a rob or syrup, to which *L'affecteur* adds some grains of corrosive sublimate. The price of each bottle is one pound sterling.

For many years past, a great number of patients have consulted me after having taken this rob for a long time, and repeatedly without success; others, who during the use of it were attacked with a violent salivation; some, who were worse than before; others even, who having ulcers in the throat, and carious bones, had become absolutely incurable, from the progress which their complaints had made in the basis of the cranium, or in other parts of the body, during the use of the rob. Among those who come to me for inveterate syphilitic complaints, two-

thirds at least avow, that they have taken this rob of Laffecteur.

It is beneath me to enter into a detail of the intrigues and falsehoods which have been used to give vogue to this medicine. But when I see men who are authorised by the laws of the College of Paris to call themselves physicians, recommending it to their patients, I am struck with pity and indignation, because nothing proves more the degradation of medicine in France, than to see physicians, even of the ancient faculty of Paris, prescribing a quack medicine, a secret remedy rather than one of which they know the efficacy, or rather than advise their patients to consult more enlightened practitioners, when they feel their insufficiency in that particular branch of the profession.

It is not surprising, therefore, that the government itself, seeing physicians extol this quack secret, should have contributed from time to time to give it credit.

The reader who would convince himself of the truth of all I have just said, need only read the work which Laffecteur announces periodically, in order to keep up the public opinion on the efficacy of his rob.

I should not descend into any further detail on this shameful part of the history of this anti-syphilitic treatment, if the public, and particularly the enlightened physicians of Europe, had not, in some manner, a right to exact from an author who writes *ex professo*, on these dis-

eases, a discussion on all that relates to it, an explanation of every sort of doubt, and the exposure of the impostures of quacks.

I begin therefore by affirming, both from my own proper investigations, and those of the most enlightened physicians and surgeons in Europe, 1°. that I know no medicine whatever, except mercury, which in the cold and damp climates of this part of the globe, will radically cure syphilis, that is, the complaints which the real syphilitic virus produces in the human body: 2°. that the mercurial preparations properly chosen, and administered with judgment and prudence, and with a due regard to the temperament of the patient, and the different degrees of the disorder, are never dangerous; that in general they cure syphilis radically, and only fail in a small number of cases: 3°. that in these very rare cases, the decoction of guaiacum or sarsaparilla, prepared with care, either alone, or combined with mercury, assisted by warm or vapour baths, cures the most inveterate syphilitic complaints now, as well as in the sixteenth century, when these plants were introduced into medicine in France, as they are still in England, Germany, Italy, &c. where it is not thought necessary to have recourse to the rob of Laffecteur: 4°. that as to the blennorrhagia (*vulgo* gonorrhœa) in particular, I consider the rob of Laffecteur, as he gives it in such cases, as a remedy more dangerous than useful, of which I shall presently give the reason; and I am con-

vinced that a great number of persons who have taken it to get rid of this complaint, and who now suffer from its unhappy effects, would have been well, and radically cured, if they had merely taken a simple decoction of *mallow*, *saponaria*, or *sarsaparilla*.

I shall now deliver what I know positively on the nature or qualities, and the administration and effects of this *rob*.

1°. The result of numerous effects of this remedy ascertained by myself, and by several medical friends, as well as by other enlightened and impartial physicians or surgeons is, that the *rob* of Laffecteur given pure, (without the addition of mercury) to patients who have never taken mercury, hardly ever radically cures syphilis, or syphilitic complaints in our climates; or, which comes to the same, those cases are so rare, that they cannot form any exception; one could hardly find one or two in a hundred. It is true, that in several cases, patients reduced, if I may say so, by the severe regimen which Laffecteur prescribes during their treatment, seem to be delivered from their old syphilitic complaints; but when they have resumed their ordinary regimen, and recovered their strength, they find themselves affected again with the same symptoms as before they trusted to his *rob*.

2°. The antisiphilitic *rob*, administered *pure*, and without mercury, to patients who have already taken mercury without success, very commonly produces neither cure nor ameliora-

tion; and, what is of great importance, makes them lose a precious time, during which they would have had recourse to sure and efficacious remedies which might have saved them. In other cases where this rob is employed for accidents which still remain after the use of the mercury, it relieves and even often cures them; but it does not seem then to produce any more effect than the sarsaparilla or guaiacum, and several other vegetables made known, and recommended by different authors for the same circumstances of the disorder. The unanimous testimony of the most respectable practitioners in England and in Germany, where this rob is entirely unknown, and where the same complaints are very well cured, is a convincing proof of what I have just asserted. It is only ignorance and quackery which extol it, and consider it as the only remedy for such complaints: at least, I have never seen that for want of this rob, more soldiers and sailors died in the hospitals of England and Germany than in France, where so many ignorant people look upon it as an infallible means, and the last resource of art. But in those countries, the government despising quack medicines, confides the sick to the most enlightened physicians and surgeons.

3°. Among the great number of patients who have come to consult me on their situation, after having used this rob, and some of whom were still taking it in the man's house, there were

several who had a copious marked salivation, with an offensive breath, swelled gums, and loose teeth, and who declared to me that they had never taken mercury before. From these facts, it is evident to me that Laffecteur adds mercury to his rob, and even one of the most acrid and dangerous preparations of it, the oxymuriate of mercury, or corrosive sublimate; and without doubt, in those cases where he is certain, from questions put to his patients, that they had never taken mercury before. In fact, how can these salivations be explained otherwise? for there is no medicine known, except mercury, which in Europe will produce that effect. It is therefore deceiving the public grossly, to affirm, as Laffecteur does, that syphilitic complaints may be cured with that rob, *without mercury*, while the most acrid preparation of that metal forms a part of it.

4°. Besides the two methods of preparing the rob which I have just mentioned, (one without mercury, and the other to which corrosive sublimate is added, while the contrary is audaciously affirmed and maintained,) Laffecteur sells a third composition under the name of *antisymphilitic rob decomposed, modified, or corrected*, and he particularly recommends it for gonorrhœa. But several patients have informed me, that they observed, while they made use of it during a gonorrhœa, they frequently passed blood, and even have had real hemorrhages of the urethra and bladder, and very often remained subject to

coarctations and strictures of the canal, as well as to very obstinate discharges. Some felt themselves affected, moreover, with spasm, either in the stomach or chest ; but these complaints well considered make me strongly suspect that Laffecteur mixes in this third sort of rob, either the powder or tincture of cantharides, a most acrid medicine, and the only one to my knowledge which will produce such effects on the animal economy.

I conclude from these observations and remarks,

1°. That the effects of the antisyphilitic rob of Laffecteur pure, that is, without mercury, are nearly the same as those of a strong decoction of sarsaparilla, or guaiacum, and that when it effects a cure, after mercury, it is from the sarsaparilla, which is one of its principal ingredients. In no case, therefore, can we depend on a sure and radical cure of the disease by this rob alone.

2°. That combined with corrosive sublimate, it produces the same effects as mercury in the ordinary way, with this difference, that judicious physicians make a proper choice out of the mercurial preparations, and do not give the corrosive sublimate indifferently, which in many cases becomes a real poison. In fact, it often produces spitting of blood, tremblings, colics, and destroys the powers of the stomach, leaving the patient to drag on a miserable existence, or to perish in the flower of his age.

I shall here allow myself a short digression on this subject. It is astonishing, that under a regular and humane government, the sale and use of a drug like the corrosive sublimate should be allowed, either alone, or disguised in a decoction or rob. If the schools of medicine were properly organised and furnished with sufficient authority, would they not forbid such a dangerous remedy to be sold by quacks, or even to be used in hospitals, notwithstanding its cheapness?

It seems to me quite contradictory, and even perfectly ridiculous, that so much noise should be made about any unfortunate person who is run over in the streets, or drowned in the river, while thousands are allowed to be the victims of quacks, or to perish by the imprudent use of this dangerous and poisonous remedy.

3°. Persons who have a blennorrhagia would spare both their health and their purse much more by drinking orgeat, or any mucilaginous decoction, than by using the *corrected* or *decomposed* rob of Laffecteur; they would escape many pains, and certainly avoid a hemorrhage from the urethra or bladder, strictures, suppression of urine, and other affections of the bladder, which so frequently come on after the use of that remedy.

4°. From the knowledge we possess of the nature, and the different modifications and complications of the syphilitic disease, and on the different treatment which they require, there is no doubt, and every enlightened physician will

think with me, that they may be cured, as in England and Germany, just as well, and even better than by the antisyphilitic rob. It is shameful, and shows that the medical art is reduced to the lowest degree of degradation, when physicians and surgeons who have received a liberal education recommend at hazard a quack medicine, whose composition they are ignorant of, and of which consequently they cannot calculate the effects. If a doubtful, complicated, or desperate case presents itself, would it not be a thousand times more honourable to advise the patient to have a consultation, than to put him into the hands of an ignorant quack, who would only make him lose valuable time, and even the favourable moment, when he might still have been saved by an intelligent physician?

Vapour baths, natural or artificial, have also been recommended as a cure, or at least a palliative of the syphilitic disease. In many places, in Italy and Portugal particularly, they have such an aversion to mercury, that the use of it in syphilis, is, or at least was a few years ago, forbidden in the hospitals; at Naples particularly, there are many persons, who, having been affected with syphilis more or less for twenty or thirty years, and afraid to use mercury, or having used it without success, go regularly every year to the subterraneous grottoes near that town, known by the name of *Sudatorio di San Germano*, where they are sufficiently relieved in a few weeks to go on till the next season.

These natural stoves of *San Germano* at Naples, are not only used for syphilitic complaints, but in cutaneous disorders also, and in chronic rheumatic pains.

Arthrodynia, et myodynia rheumatica.—When the patient comes out of the stoves, they make him drink a large quantity of iced-water; then put him to bed, and covering him with blankets, he falls into a copious sweat. It seems that the ice-water acts like a powerful tonic on the stomach, while the skin is strongly disposed to perspiration from the bath.

In Hungary and Poland, the poor when affected with syphilis, probably with the same view, place themselves up to the head in a dung-hill for several days following; and the Russians and Turks use their vapour baths. In warm countries, the patient is sometimes buried in the hot sand, which is also used for several other cutaneous and rheumatic complaints.

There is no doubt that vapour baths properly administered might contribute not only to relieve syphilitic disorders, but to accelerate their cure, and extirpate them when inveterate, if given every three or four days, during the use of mercury; they might perhaps in this way prevent the bad effects which mercury so often causes, by remaining in the body after it has produced its effect on the virus.

There are different ways of administering vapour baths. The following is one of the best in countries where they are not known nor

generally used. A camp bed is prepared with a mattrass on it, covered with a blanket: the patient, with nothing on but another blanket, lies on the bed, which is then covered with two more blankets, so as that they may be about two feet or eighteen inches from his body.

A cauldron full of boiling water is placed near the bed on a pan with spirits of wine burning; the cover of it has a hole in which is fixed an iron or copper pipe, bent so that the mouth of it may go between the blankets. The vapour bath is thus administered for half an hour or an hour. The patient being then well rubbed with dry cloths, must rest on a sofa or a bed warmed for an hour. The bath must be repeated every day, or every other day, six, eight, or ten times.

The patient should rub himself during the bath, and particularly the affected part.

Sometimes it is advisable to give during the bath a few cupsful of a decoction of guaiacum or sarsaparilla, or white wine whey, to favour the perspiration.

There is no doubt that the famous *Sudatorio di San Germano* at Naples, contributes greatly, together with the decoctions just mentioned, to the cure of syphilitic complaints, as well as the vapour baths in cold and damp climates; and perhaps in warm climates such means may sometimes effect a radical cure.

As to other remedies which we see every day announced by quacks, and pretended possessors of secrets, as not containing mercury, and radi-

cally curing all syphilitic complaints, they are, for the most part, as I have already said, mercurial preparations disguised with some decoction or syrup, or else are uncertain or useless remedies ; and it is even fortunate for the patient when they are merely useless.

The result of these observations and remarks is, that the attempts, researches, and efforts of physicians, for three centuries, to discover an antisymphilitic remedy, possessing all the virtues of mercury, without any of its bad or dangerous effects, have till now been fruitless ; and that mercury, particularly when judiciously used, preserves, at least in Europe, the first rank as a sovereign and specific remedy for the syphilitic disease. It is consoling to the philosophical physician to see, that wherever man is subject to a calamity, nature places in the scale the most simple and most powerful remedy, and gives to man, when active in the pursuit of improvement, the genius necessary for discovering it. It would seem, that an enlightened genius might, by the exertion of his intellect, always find a counterpoise to the physical and moral evils with which nature appears to overwhelm us.

After what I have said of the different non-mercurial remedies employed for the cure of syphilitic complaints, it may, perhaps, be useful to add a general list of these medicines, which I shall exhibit in three sections.

A.—The remedies employed internally and externally, in warm climates, without the use of mercury, are :

1°. Sarsaparilla, in different forms. (*Smilax sarsaparilla*.)

2°. Smilax-China. (*China-root*.)

3°. The decoction of guaiacum. (*Guajacum officinale*.)

4°. The wood or gum-resin of sassafras. (*Laurus sassafras*.)

5°. The decoction of *lobelia syphilitica* alone, or with the *ranunculus abortivus*, also the *lobelia longiflora*, of America.

6°. *Magnolia tripetala*: the decoction of this bark is in use amongst the savages of Virginia and Carolina.

7°. The decoction of *phytolacca decandra*, in use amongst the savages of North America.

8°. The decoction of *agave Americana*, used at Naples, and in Spain.

9°. The juice of a species of *euphorbia*, in Hindostan.

10°. The decoction of *euphorbia parviflora*, in the West Indies.

11°. The flesh of lizards called *anolis de terre*, in South America.

12°. Repeated drastic purgatives, as the extract of coloquinta, (*alhandal*), in Africa.

13°. The *decoctum Lusitanicum*, in Italy and Portugal.

14°. The oxygenated medicines, particularly

the solution of nitric or nitrous acid in a great quantity of water, or the oxymuriate of potash in a large quantity of water.

15°. The decoction of Dr. Pollini, of Laybach, in Carniola.

The external means are :

1°. Vapour baths, rubbing the body at the same time.

2°. Artificial or natural steam, as in the subterraneous grotto at Naples, &c.

3°. Sand baths.

4°. Scarifications, (*cucurbitalæ scarificati*,) with cupping-glasses.

5°. Moxa, or other caustics.

6°. The powder of the root of the *geum rivale*, in syphilitic ulcers, in America.

7°. The powder of the internal bark of the *ceanothus Americanus*, in deep asthenic ulcers, in the same country.

B.—The medicines, and other means which I have used with real advantage, in many cases rebellious to mercury, after it had been employed without success in large doses, continued for a long time, in the cold and damp climates of Europe, are :

1°. The decoction of sarsaparilla, (*decoctum sarsaparilla correctum*, &c. Ph. Syph.): the powder of sarsaparilla, in large doses; the syrup called *sirop de Cuisinier*, pure and simple. I have used these preparations sometimes alone,

sometimes with the black sulphuret of antimony, or occasionally with the carbonate of potash or soda.

2°. The decoction known in Italy by the name of Pollini's water.

3°. The decoction of green walnut-shells, (*Decoctum drupæ fructûs juglandis regiæ.*) Ph. Syph.

4°. Vapour or steam baths, with frictions.

5°. Sea baths, hot or cold.

6°. Opium.

7°. Oxygenated medicines, particularly the nitric acid, and oxymuriate of potash.

8°. Bark in large doses.

C.—The remedies, and other means attempted or extolled in different parts of Europe, for a radical cure without mercury, or for syphilitic complaints that resist it, are :

1°. The decoction of sarsaparilla, or the powder of it obtained by torrefaction, four ounces a-day.

2°. The *sirop de Cuisinier*.

3°. The rob of Laffecteur, principally composed of sarsaparilla and corrosive sublimate.

4°. The vegetable syrup of Velnos, or Swainson, chiefly sold in London, of which the principal ingredients are sarsaparilla and the carbonate of ammonia.

5°. The decoction of guaiacum, and the gum resin, in powder or tincture.

6°. Pollini's decoction.

7°. The decoction of *astragalus exscapus*. Ph. Syph.

8°. The powder or the decoction of the *gratiola officinalis*.

9°. Decoction of green walnut-shells.

10°. Decoction of *chærophyllum sylvestre*, which has lately been used with advantage in Sweden.

11°. The anti-syphilitic tincture of Besnard, physician to the king of Bavaria.

12°. the tincture of aloes with camphor, which has chiefly been used in the hospital at Toulon. (*Tinctura aloes camphorata*, Ph. Syph.)

13°. The decoction of the flowers and tops of *ulex Europæus*, or *spinosus*, recommended by Turner in the most inveterate syphilitic complaints.

14°. Decoction of *saponaria officinalis*.

15°. Decoction of *buxus sempervirens*.

16°. Decoction of *daphne mezereum*, or of *daphne laureola*.

17°. Decoction of *ledum palustre*.

18°. Decoction of *carex arenaria*.

19°. Opium in large doses.

20°. Extract of hemlock in large doses.

21°. Extracts of bitter plants, particularly *menyanthis trifoliata*, *humulus lupulus*, the leaves of *amygdalus persica*, *teucrium scordium*, &c. which, it is said, enter into the composition of *Mittier's* pills, particularly used at Paris.

22°. The muriate of gold of *Chretien*, alone, or with the decoction of *mezereon*.

23°. Sulphur, or else the yellow hydro-sulphuret of antimony.

24°. The white oxyde of arsenic.

25°. The carbonate of potash, soda, or ammonia.

26°. Electricity and galvanism.

27°. The *metasyncrisis*, described above.

I shall conclude this long chapter by observing that this principle should be considered, nay even established as a general rule, that there is no mercurial preparation, nor any other remedy whatever, which is always proper at all times, and in all cases of the syphilitic disease, and that consequently there is no *universal anti-syphilitic remedy*. My own experience, together with the observations of the most enlightened physicians in Europe, confirms more and more this truth, that the different preparations of mercury should be adapted to the constitution and idiosyncrasy of each patient, to the modifications or degenerations of the disease itself in different persons, as well as to the different states and varied complications of syphilis with other disorders, and that then these complaints are almost always cured, or at least seldom fail to yield to the efforts of art.

CHAPTER XIII.

OF THE COMPLAINTS PRODUCED BY MERCURY, OR MERCURIAL DISEASES PROPERLY SO CALLED, AND OF THEIR TREATMENT.

THE bad effects of mercury on the human body have been observed at all times, in the mines from which that metal is drawn, and in the different shops or manufactures where it is used, but particularly since the use of divers chemical preparations of it has been introduced into the practice of medicine for the cure of syphilitic complaints. Many ancient writers since Vigo take notice of them; and there is no modern practitioner, who has not had occasion to see the bad and even dangerous effects of this metal, particularly when given imprudently, and without the necessary precautions.

Though this subject be extremely interesting, I do not know of any other author who treated of it or examined it *ex professo* before me. In 1798 I published, for the first time at Paris, my "*Complete Treatise on Syphilitic Diseases*," in 2 vols. 8vo.* though I had already spoken in

* Eight or ten years after a London surgeon published a little pamphlet on the same subject, in which he copied what I had said almost word for word without noticing the source of his information; it is indeed possible, that he did not know French, or had not seen my work.

part of the ravages and dangerous effects of mercury on the constitution, in my *Practical Observations on Venereal Complaints*, particularly chap. xix. and xx. third edition, published at Edinburgh, in 1788. I do not mean here the simple irritation which mercury occasions in almost all patients, or the pustules produced by mercurial frictions, but those particular disorders, more or less serious, and even sometimes fatal, which this medicine produces, especially when given imprudently in large doses, or for too long a time.

I shall not here speak of the bad effects of mercurial preparations in particular, because I have amply discussed this subject in a separate chapter; but I shall principally consider the diseases which mercury, and especially the mercurial oxydes and salts in general, seem to produce in the system; whether they be owing to these active medicines themselves, or to the bad choice or improper administration of them, or finally, to the want of necessary care during the use of them.

We have considered the nature and action of mercurial preparations in the xi. xix. xx. and xxi. chapters of this volume; we have there shown that mercury does not seem to act on the virus and syphilitic complaints, unless it is combined with oxygen, and thus forming an oxyde or mercurial salt; for the mercury in its metallic form administered internally or externally, seems in general to have no action on the human body,

for taken into the stomach or intestines it is commonly discharged by stool without being absorbed by the lacteal vessels of the intestines.

I have also shown elsewhere, that triturated with grease, gum, &c. it is not, as was long imagined, in a state of simple division, but in a real state of oxydation; and I have developed the conjectures of different authors on the action of the mercurial preparations on the virus: here, therefore, I must consider the action of mercury on the human body under a double point of view: 1°. its action on the body with its effects, in general, in consequence of the oxygen it contains; 2°. as mercury, but infinitely divided, or otherwise changed, either by the different acids with which it is combined, or by the new combinations it forms in the body. In chapter xix. I have said, that, among all the theories published by different authors, that which I gave in the first edition of my work on this subject appeared to me the most probable; namely, that the mercurial oxydes or salts seem to act by uniting with the virus, or with the humours with which it is always mixed in the body; that it neutralized or changed them so, that the nature of the virus was completely altered, or entirely destroyed, and consequently the action or irritation occasioned by it must *ipso facto* cease. It seems, moreover, that during the very time that this takes place, there is a real decomposition of the mercurial oxyde or salt, and that the oxygen quits the mercury with which it was combined.

But the action of the mercury does not stop there: for, by continuing its use, we observe, that the oxygen on one side, and the mercury as a metal on the other, while it is leaving, or after it has left the oxygen, produce changes and particular effects in the animal economy, which I shall now detail.

Oxygen, introduced into the living system by the lungs, and particularly by the stomach, with substances from which it afterwards easily separates, increases the action of the heart and arterial system, makes the blood redder, and gives to the albuminous part a disposition to thicken or coagulate; it sharpens the appetite, and seems to augment the general vigour of the body; ulcers cicatrise, and other syphilitic symptoms diminish, and sometimes disappear, especially in warm climates, during this action of the oxygenated medicines. These are the effects of oxygen without mercury on the blood, and the system in general. I now come to the consideration of the effects produced by mercury when pure and simple, or combined with oxygen in mercurial preparations. Mercury, when boiled, is volatilised; and it is on this principle that it is separated and purified from all the heterogeneous substances which may be mixed with it. But a piece of linen must be wrapped round the neck of the retort which descends into the water contained in the receiver, or the mercury would not condense. If distilled with-

out this precaution, it breaks the recipient, and disengaging a gas, of which the nature is not well known, which exposes to asphyxia the operators.

Mr. Gosse, of Geneva, has lately remedied this inconvenience. He has invented a very simple apparatus, by means of which, the pernicious effects of the mercurial exhalations, to which workmen and artists are so often exposed, are effectually prevented. It consists of a simple mask, like a hollow cone, made of fine sponge, covered over with bits of fine sponge moistened with pure water, and fastened firmly on the face. The pure air easily passes through the wet sponge which intercepts the deleterious gas. The same apparatus, impregnated with an acid solution, or alkaline, or acetate of lead, may be breathed through, and protects the organs against other injurious gases. This discovery deserves the gratitude of all who interest themselves in the welfare of mankind: it is related in the *Bibliothèque Universelle*, published at Geneva, in January 1817.

The vapours, or exhalations of this mineral in mines, as well as in work-shops and chemical laboratories, greatly affect the nerves and brain, and produces asphyxia, colics, tremblings, and even palsies of the limbs, render the body languid and indolent, and at length destroy all the intellectual faculties of man, making him dull and stupid. I have seen many examples of this

unfortunate state among metal-gilders, who make use of gold amalgamated with mercury, and then volatilise the latter in the fire.

Fourcroy has given us* a striking example of the complaints which mercury, applied in this manner, is capable of producing; it is the history of two gilders, a husband and wife, and it deserves insertion here.

“ The man was very much employed at Paris, and gilded from morning to night, in a room pretty large, but low, and in which he, his wife and children slept. Having taken hardly any precautions against the mercurial vapours, he first got ulcers in his mouth in great quantity; his breath was foetid, and he could neither swallow nor speak, without dreadful pain. Similar symptoms, after having been cured by leaving his work, and appropriate remedies, appeared again, three or four times successively, alone, and without any other symptom: but to this was soon added a general and very violent trembling, which first attacked his hands, and then his whole body; he was obliged to remain in an arm-chair, without being able to walk a step, and his situation was really lamentable. Agitated by constant convulsive motions, he could not speak, nor move his hands towards his mouth without striking himself; they were obliged to feed him, and he only swallowed with a convulsive deglutition,

* See an Essay on the Diseases of Workmen, translated from the Latin of *Rammazzini*, with notes. P. 42, &c.

which threatened a hundred times to choke him. In this dreadful state, he had recourse to a quack, who rubbed his legs with an ointment, bathed them in strong wine, in which aromatic herbs were infused, and prescribed every morning and evening, about a drachm of a red powder to be taken in an apple. These secret remedies, which therefore cannot be explained, had a singular effect: his trembling ceased a little; his legs and thighs swelled prodigiously; and large blisters came on them in great quantity; they were pierced with a needle, and gave out copiously a muddy serous water, which was preserved in vessels by order of the quack. After some time, a sediment appeared in them, in which globules of mercury were very evident. This fact will not appear surprising, as mercury has more than once been found in the dead bodies of persons who had taken a great deal, in the metallic form, in their brain, intestines, lungs, and bones themselves. At the end of five or six months of this treatment, the patient found himself much better; his trembling being greatly abated, and almost gone, he thought himself cured; and notwithstanding the advice of his doctor, who wished him to continue his medicines two or three months longer to insure a perfect cure, he neglected himself. By degrees he tried to walk with two sticks, and at length found himself strong enough to venture to go out and walk in the streets; the exercise strengthened him, but he had so much nervous

sensibility, that the noise of a horse or carriage made him start, and to such a degree, that he would often have been in danger of being run over, had he not taken the precaution to keep the wall. He was obliged to stop, for fear of falling, and could not express the disagreeable sensation which such noises gave him. At length, he set to his work again; but notwithstanding all the precautions he took, his trembling increased, and fixed in his hands. It is curious, that being accustomed to intoxicate himself, he could then hold his glass, which he could not when sober; and he told me he had observed the same in several of his comrades who were in the same situation. The care he took to work very little, and to drive off the vapours of the mercury by a current of air, saved him from the severe affliction he had suffered before; but there still remained the trembling of his hands, and an insupportable stammering, the *psellismus metallicus* of Sauvages, which resisted the electrical shocks that have been recommended in this case by *De Haen*, who used them successfully. This gilder lived three or four years after, without any other accident; and died of a fracture in the arm in three different places. It is remarkable, that that arm had been afflicted with rheumatism, and that he had had a seton in it for many years.

“ His wife had nearly the same symptoms, but much less serious in the beginning. She had,

in particular, a ptyalism, which dried her up like a skeleton. Some time after she became asthmatic. The attacks of this complaint, though distant at first, continued to come oftener, till she had a constant rattle in her throat, though without spitting or coughing; towards the end of her life, when her complaint had continued for eighteen years, she could neither walk nor stoop without fear of suffocation; confined to her chair for more than a year, she was at last delivered by death."

Mercury, taken in a large quantity in the liquid metallic form, does not seem to affect the stomach and intestines at all, but it runs through the whole intestinal canal, and comes out as it went in. However, it is a general opinion in Germany, that mercury boiled in water communicates to it an anthelmintic virtue; and the fact which I have cited, in another part of this Treatise, of a dog that had the itch, and was completely cured by drinking merely a decoction of mercury, seems to confirm this opinion; but I think it wants confirmation from further experiments.

Mercury, introduced into the animal economy in the form of oxyde or salt, produces several effects like those of oxygen, but others very different. It often excites pains and spasms in the stomach and bowels, dyspepsia, or loss of appetite, colics, diarrhœas, or dysenteries. When it has entered the blood, it often makes the tongue white like the oxygenated medicines;

it disposes the albuminous part of the blood to coagulation, and displays several other symptoms of increased irritability. Ulcers, and other symptoms of the syphilitic disease, local or universal, assume a more benign character during this action of the mercury. All the pernicious effects of the virus abate, and finally cease; the ulcers cicatrise, and the syphilis disappears. These effects generally take place, and if the mercury has been properly administered, the patients, with few exceptions, are radically cured. But in others, and especially if they have been treated imprudently, it often produces a sudden and violent increase of the saliva, which is changed into an acrid, corrosive, and offensive humour, a stinking breath, swelled gums, and painful corroding ulcers in the mouth and tongue. The teeth grow black and loose, and sometimes fall, together with the palatine or maxillary bones. These symptoms are generally attended with languor, and a feebleness, or general emaciation; and they sometimes end by torpor, or a general cachectic or asthenic state, or sometimes cataleptic: at other times it excites tremors, with a general morbid irritability of the nervous system, while the syphilitic ulcers, instead of healing, change to what are called *phagedenic* or *scrofulous*; but which perhaps might be better named *mercurial ulcers*.

Mercurial preparations, moreover, excite pains in the head, swelling of the face, throat, and all

the interior parts of the mouth, and especially when the patient has exposed himself to severe cold or night air; sometimes fevers, with very violent local inflammations, followed by mortification; at other times a spasm or tetanus, partial or universal, violent pains in the muscles, tendons, or joints, resembling rheumatism or gout, mania, paralysis, and even sometimes apoplexy and death.

In certain parts it sometimes produces a very great irritation, speedily followed by mortification. I have cited above an instance where the imprudent use of mercury occasioned a gangrene in the throat, and another where the gummy oxyde of mercury, applied to an ulcerated bubo, produced the next day a mortification in the groin.

It is observed, in general, that mercury is very prejudicial to scorbutic habits. With such patients, the oxygenated medicines, particularly the nitric acid, should be carefully tried.

In other cases, and perhaps in certain constitutions, syphilitic ulcers in the throat or genitals, instead of healing under the use of mercury, remain stationary; soon after they change their nature; the slightest touch gives pain, and the matter becomes acrid and corrosive; they spread rapidly, and sometimes form inequalities and excavations, as if they had been nibbled by insects; the whole system is affected, the pulse is irregular and quick, the patient loses rest and sleep, is exhausted with

night sweats, and is impatient and irritated by the slightest cause.

Sometimes, especially if mercury is persisted in, pustules or vesicles appear on some parts, or over the whole body, or spots of a light or deep red, or even purple and livid; sometimes without fever, at others with fever more or less inflammatory; but frequently also the eruptions are attended with an asthenic or putrid fever (*septorrhopyra*, Nasal. Method. Auct.), very dangerous, and even fatal.

Sometimes, during the long-continued use of mercury, little tubercles are formed, round and hard in the circumference, but soft in the middle, in the hairy scalp or forehead, commonly called *tophi* or *nodi*. When these tubercles diminish by themselves, or by medicine, on pressing the spot with the finger, an inequality is perceived, as if the bone was driven in, or as if a part had been carried off. But if the tumour be opened, no hollow is found, but sometimes the bone is carious. This sometimes arises from a thickening or tumour of the periosteum. These little tumours are also sometimes owing to the virus itself.

Pott first observed, that these tumours of the periosteum of the skull sometimes proceed from an inflammation of the fibrous membrane of the brain, called the *dura mater*. They are often radically cured by an incision which divides the thickened pericranium down to the bone. A little lint is put on the wound, taking care not

to stop the blood, which sometimes amounts to a pound and a half, as this loss of blood is rather beneficial than otherwise. This operation is particularly useful when these tumours come on during or after a complete mercurial course. If after the incision the bone is not sound, it must be touched with caustic to facilitate the exfoliation.

If the temporal bone itself is swelled, the muscle must be cut, and caustic applied. In all exostoses of this kind, the bone is exposed, and caustic, a blister, or the trepan, are applied according to circumstances; moxa also has been tried to hasten exfoliation.

Sometimes, after the bone has been laid bare by incision, an exudation of limpid humour is perceived, and if dried up with lint, appears again directly on removing it. In this case, it is almost always necessary to hasten the exfoliation with nitric acid diluted in water, though the surface of the bone appear sound. If the acid occasions pain, it must be repeated only once every three or four days. It is probable, that in this case, there is also an inflammation of the *dura mater*.

The exostoses or tumours of the parietal bones of the skull, sometimes cause by their pressure an irritation or phlogosis of the *dura mater*, and a palsy of the bladder, a dysentery, or constipation, or pains and tumours in the tibia of the opposite side.

It is often difficult to determine if this phlogosis of the *dura mater* proceeds from the mer-

cury; or whether the tumour, or the pain of the tibia, as well as the exostoses of the parietal bones, arise from the inflammation of the dura mater, and the action of the mercury on this part; or whether these complaints are produced by the syphilitic virus. Exostoses, hyperostoses, or the *spiculæ ossium cranii*, often cause dreadful headaches, palsies, and sometimes also blindness, deafness, pains, abscesses, and ringing in the ears, sleeplessness, vertigoes, and epilepsy, which are incurable if the cause be of long standing.

In short, in other circumstances, the constitution seems, during or after the use of mercury, to undergo a total change, but different from the preceding. The patient becomes more feeble from day to day; his countenance changes, with a leaden colour in his face; and the ulcers, instead of healing, become flabby and livid, and easily bleed. Thus changed, they are called *putrid* or *scorbutic*, but more properly *asthenic mercurial ulcers*. In this state, the whole body seems to suffer a sort of cachexy, which has been not improperly compared to scurvy, and which has even been named scorbutic. It is a general state of debility, with an apparent decomposition of the fluid and solid parts of the body.

Mercurial ulcers of the mouth and gums are easily distinguished from syphilitic ulcers; 1°. they are painful to the touch, and are even constantly painful, while syphilitic ulcers on the contrary are in general more indolent. 2°. They are most commonly situated on the tongue,

lips, and gums, and particularly behind the last *dens molaris*; but syphilitic ulcers are principally in the tonsils and uvula. 3°. Though they are sometimes covered with a white and lardaceous crust, like syphilitic ulcers, they are redder in general, and easily bleed when rubbed. 4°. They get worse with the use of mercury, and even sometimes become fatal, if it be continued too long, while they yield easily to the sub-borate of soda, or to local astringents.

In several cases, mercury, though administered according to all the rules of art, seems to exert no action on the body of the patient; but after having remained, as it were, inactive for weeks, and even sometimes whole months, as I have remarked above, it begins all at once, without any apparent cause, to produce evident effects; namely, a taste of copper in the mouth, swelling of the gums, and a real and copious salivation.

Sometimes it leaves such an irritability of the stomach, or the whole system, that the patient cannot bear the least dose of mercury in any future complaint, without the greatest inconvenience, producing pains in the stomach, oppression of the chest, spitting of blood, head-ach, a slow fever, and violent pains in different parts of the body.

From all these considerations, it appears that the different mercurial preparations are capable of producing three very distinct and very different states in the animal economy. In the

first, they attack the syphilitic virus, destroy it, and thus put an end to its action, and to all its bad effects or symptoms. In the second, they strongly excite the action of the heart, and of the whole arterial system, produce a great degree of irritation in the whole body, and occasion ulcers of a particular kind: or else they change the syphilitic ulcers into corrosive ulcers, very irritable, and even sometimes producing mortification. The third state which the use of mercurial preparations brings on, is a general weakness of the body, with a cachectic and asthenic state, very like scurvy; with an apparent decomposition of the fluids and solids. I now proceed to the treatment of these different symptoms.

According to the principles just established, I divide the treatment of diseases produced by mercury into three divisions. In the first, I shall give the method of curing complaints produced by excess of oxygen, whether it has been taken in mercurial preparations, or in other medicines that have been tried of late; in the second, I shall treat of the cure of complaints attended with weakness and cachexia; and in the third, shall propose some means of relieving or curing the effects that are probably owing to mercury as a metal.

In order to cure the ulcers or other complaints produced by mercury, we must above all, 1°. leave it off; 2°. the patient must take one or more warm baths with dry frictions, or vapour baths, in order to facilitate perspiration; 3°. fre-

quently change his linen, and observe the greatest cleanliness; 4°. change the room he is in for a larger one, or if that is not practicable, clean it well, and keep it clean and well-aired: if the patient is in an hospital, he must be put out of the ward from the other sick, and have a room to himself; 5°. he must have medicines appropriate to his situation, as I shall show directly; 6°. he must frequently apply a gold leaf on his mouth or skin, to ascertain if the mercury continues to exhale in those parts.

As to complicated syphilitic diseases, and their cure, I have treated the subject in one of the preceding chapters (ix.), to which I refer the reader.

With respect to certain ophthalmias which resist mercury, and all other remedies, till a fresh discharge is produced from the urethra, see vol. i. chap. vi.

I have also made mention in different parts of this work, of several ulcers or fistulas, and of pains in the genitals and surrounding parts, which continue obstinate against mercury, and are only cured by exciting a new discharge from the urethra.

In some cases the mercurial oxydes and salts destroy the virus, and all the syphilitic symptoms, without producing any disagreeable effect, or leaving any trace behind them. This is most desirable, but in other cases, they excite the action of the heart and arterial system to a considerable degree; they increase the secretion of

urine and perspiration, and sometimes produce asthenic fever more or less violent, local inflammations, swellings of the gums and salivary glands, a copious salivation*, and painful ulcers in the mouth. These symptoms require the cessation of the use of mercury, and, according to circumstances, one or more bleedings, and leeches, or scarifications of the inflamed parts. Ptyalism and ulcers require the attentions recommended in chap. viii.

As to ulcers which arise, or become very irritable during the use of mercury, the first thing is to leave it off, both internally and externally; and if the practitioner should be called to a consultation with others, he should endeavour to convince them that these symptoms are the real effects of the mercury, and hinder them from trying a new mercurial preparation, which is almost always proposed in these cases, and often insisted on to the detriment of the patient, because instead of ascertaining the real source of these effects, they are generally attributed to the inefficacy of the mercurial preparations till then employed. The most important point, there-

* To ascertain if mercury would produce the same effect on other animals, I tried it on a dog. I merely rubbed the grey mercurial ointment on his back, without shaving him, once a day. In three days, his mouth began to be affected; and though the frictions were immediately discontinued, the salivation became very violent; he was so ill for a fortnight that I expected to lose him. The salivation continued all the time with an abominable stench, which infected the whole house.

fore, and without which all else would be useless, is to discontinue the mercury, which in such cases becomes a real poison.

The progress of mercurial ulcers of the glands is sometimes so rapid, that they carry off the patient, or end by gangrene, or become carcinomatous.

The second point is to stop the progress of ulcers by medicines and regimen suited to the state of the patient, and to the new character which the disease seems to have taken.

The surest and quickest means must therefore be employed to prevent the ravages of this new complaint.

Sulphur, the sulphuret of potash or lime, the sulphurous or alkaline mineral waters, baths of the same, sea-baths, astringents, particularly an aqueous decoction of bark, or vinous infusion of it, and sometimes still better with lime-water; or else a decoction of green walnut-shells, the carbonate of potash or soda, in the quantity of from thirty to forty grains a-day, divided into separate doses, lime-water, or the carbonate of lime in great doses, are the most efficacious remedies hitherto employed.

Dr. Rollo, in his Treatise on Diabetes, informs us, that in this sort of ulcers attended with great irritability, the hydro-sulphuret of ammonia has been tried with success, given internally, three or four drops, three or four times a-day, with the sulphurous hydrogen gas externally to the affected part.

On the other hand, it seems that a too rigorous diet, with vegetables alone, and confinement to bed or to a room, often keep up this morbid irritability. Such a diet, therefore, should be gradually changed to one more nourishing, composed of fish, shell-fish, tender animal food, with a moderate use of wine, and ass's or woman's milk. It is of consequence to exhort him, as far as circumstances will allow, to leave his bed, and enjoy moderately the free and pure air; which will help not a little to tranquillise and encourage him, and accelerate his recovery.

In cases where the patient is greatly extenuated, and the degree of irritability considerable, the internal and external use of opium, or of the extract of *white henbane* or of hemlock is very useful: in the same cases sarsaparilla, an ounce a-day in powder, or a strong decoction mixed with milk, or, according to circumstances, with the carbonate of soda, has been found extremely useful.

In very obstinate ulcers of the mouth or throat, attended with pains, and an acrid and ichorous discharge, the sub-borate of soda, or the carbonate of soda dissolved in water, alone, or with a little alcohol and honey, are the best topics that can be employed; or else, according to Dr. Sprengel, a gargle made with a decoction of green walnut-shells.

The late *Dr. Quarin*, of Vienna, used with success in these cases, the extract of *gratiola officinalis*, to the amount of eight grains, three or

four times a-day, mixed with the same dose of carbonate of lime.

Pains of the stomach and bowels, excited by mercurial preparations, generally stop by discontinuing them, or by giving the patient a grain of opium every night for several days.

The quickest and surest antidote for acrid mercurial preparations, as the corrosive sublimate, &c. is, as I have said above, according to the discovery of Berthollet, the decoction of bark, or any other substance containing the astringent principle in abundance.

Syphilitic *ulcers*, which, by the imprudent use of mercury, assume a carcinomatous character, are sometimes cured by leaving off mercury, and administering bark and opium in large doses; sometimes, under the use of these remedies, they will yield to the arsenical powder, known by the name of the powder of *Frère Côme*, or *Bernard*; and sometimes it is even necessary to repeat the application.

When perspiration suddenly stopped during a mercurial course, has produced general pains or spasms, fever, &c. the most efficacious remedies, as I have said elsewhere, are frequent warm baths, but particularly vapour baths, and internally, the yellow hydro-sulphuret of antimony, with hemlock, to the amount of from six to fifteen grains of each a-day; or, according to circumstances, Dover's Sudorific Powder; and to calm the symptoms of irritability, opium once or twice a-day.

The other diseased state, which often appears, especially after a too long use of mercury, and which, from its character, and the peculiar nature of the symptoms, I have called *asthenic*, requires remedies and means quite opposite to those just mentioned. I have said that this sort of cachexia has been called *scorbutic*; but it is the general weakness of the body which should guide our judgment in the choice of medicines for it.

From whatever cause it arises, whether from the regimen or atmosphere of hospitals, or the air of the room where the patient has been long confined; or whether it is owing to a particular decomposition of the fluids or solids of the body occasioned by the action of mercurial preparations too long continued, which further experiments and observations will decide, we evidently see that the continuation of the mercury is prejudicial, and even at length fatal. This dangerous remedy must therefore above all be abandoned, and at the same time the diet and regimen must be changed. If the patient has been kept in bed, or in a small room, he must be made to get up for half an hour or an hour, and by degrees for the greatest part of the day; he must change into a large airy room, or, what is still better, he must leave the atmosphere of the town or hospital for that of the country; and by degrees, as soon as his strength will permit, he should take moderate exercise on foot, on horseback, or in a carriage. A nourishing and

strengthening diet must be ordered, a decoction of malt, good beer, wine, bark, or, according to circumstances, the juices of antiscorbutic herbs, a draught made with nitric acid, or the oxymuriate of potash, diluted in a great quantity of water, and the acidulous mineral waters, simple or ferruginous. Asthenic ulcers require externally, a cataplasm of fresh carrots, or powdered sugar or rhubarb, or columbo, and in some circumstances, in order to change the action of the affected parts, the topical application of alcohol alone or camphorated. There are, in fine, some particular cases of these ulcers, in which caustic may be useful. Asthenic ulcers of the inguinal glands sometimes require a strong compression by means of a proper bandage.

I now come to the treatment of complaints that appear to be produced by the mercury as a metal, when applied to the body externally, in the form of vapour or exhalation, as well as those which seem to arise from the same metal, introduced at first into the body, in the form of oxyde or salt, but reduced to the metallic state, after having left its oxygen, or the acid with which it was combined. It is in this state, especially when it has been given without proper precautions, that, divided into infinitely small particles, instead of going out by perspiration or the saliva, in proportion as it is set at liberty, it seems to lose itself, and re-uniting in globules more or less considerable, is deposited in the great cavities of

the body, the bones, the viscera, and the joints, or between the sheaths and membranes of the tendons and muscles ; and there produces violent pains, head-achs, spasms in different parts, trembling of the extremities, palsies, &c. ; complaints which, on a superficial examination, are often improperly considered as old syphilitic disorders. Numerous and authentic facts observed in the bodies of persons who had taken much mercury during their life, leave no doubt that these mercurial extravasations sometimes happen, and even perhaps oftener than is imagined. *Vide supra.*

In all cases where, after a profound examination, we suspect this cause, we must endeavour by all possible means to make the mercury be re-absorbed, to make it re-enter the blood, and drive it out of the body by perspiration. Warm baths, especially of sulphureous mineral waters, vapour, and embrocations by drops ; general and particular frictions of the body, and the affected parts, and the same mineral waters, taken internally, or the black sulphuret of antimony, the yellow hydro-sulphuret of antimony, and guaiacum, are the most efficacious.

If the complaint be in the joints or muscles, electricity may be tried, and frictions with sulphur ; or sulphur internally, or perhaps still better, the sulphuret of potash, or lime dissolved in a great quantity of water, of which an ounce or half an ounce may be given every half hour ; which is the best way of giving even the alkalies,

without fatiguing the stomach. These are the only means known at present ; but we may learn something hereafter, perhaps, of the method of the Malays and Hindoos, which, as has been stated above, is said to be much more perfect than any hitherto followed in Europe.

CHAPTER XIV.

OBSERVATIONS ON SOME DISAGREEABLE OR HURTFUL
ERRORS OR PREJUDICES, THAT ARE GENERALLY CRE-
DITED RESPECTING THE SYPHILITIC DISEASE.

THERE are some patients who have adopted an unfortunate opinion, that the syphilitic virus when it has once penetrated into the body can never be totally eradicated. They believe in consequence, that a person who has the misfortune to be infected can never consider himself as radically cured; and this absurd opinion makes them very unhappy. I have often seen the happiness of life, particularly in women, destroyed by this prejudice, notwithstanding all that the physician could say to convince them of their error. The least head-ach, the slightest rheumatic pain, or the least pimple on the skin, appear to them as certain proofs of the virus being hid in their body, and on the point of producing the most cruel effects. Such persons are truly deserving of pity, and it is but just to examine their situation exactly, and bestow the most attentive care upon them; for can there be a more dreadful state than that of a being

perpetually a prey to such terrors? They can only be relieved by freeing their imagination from such prejudices. If the patient has exposed himself to the infection, without however having any evident symptom of it, one may often succeed in curing him, by small doses of mercury, and inspiring him with great confidence in the medical art; and thus increasing gradually the hopes of a cure, we may generally in a few weeks or months effect a radical cure of such imaginary complaints. But if after using the mercury, the patient persists in his fears, and after the most attentive examination, no syphilitic symptom can be found, we must endeavour to remove his prejudices by placing before his eyes the example of persons of his acquaintance, or our own, who having had the disorder as bad or worse than himself, have been cured, and enjoy perfect health for many years, are married and have strong healthy children. When this did not succeed, I have sometimes been more fortunate in cases apparently desperate, by telling the patient how I had had the disease myself in all its degrees, at different periods of my life. I made them observe, that though at an advanced age, I was perfectly well, without any complaint in my stomach, or head-ach, or any disorder whatever, and that for a great number of years I had enjoyed as good health as a man could wish.

The same attention is due to those who

imagine that when one has once taken mercury for syphilitic complaints, that it will not be so efficacious a second time. We find this most commonly in women, though men of a melancholic habit are also sometimes influenced by it.

There is another prejudice, which is not only absurd but criminal, and the propagators of which deserve the severest punishment. It is only found among the most abandoned libertines ; who persuade themselves that the best way of getting rid of a blennorrhagia is to have connection with an innocent girl, or at least with a sound woman ; and I have thus seen the disease propagated in a few days among ten or twelve healthy persons, who had the misfortune to fall in the way of these brutes. The absurdity of it is evident to every one who has common sense, and the least knowledge of the seat and nature of blennorrhagia, or, as it is called, gonorrhœa ; and where such a notion arises merely from prejudice, the least reflection would be sufficient to remove it. But it is to be feared, that such an infamous proceeding has a deeper root in the heart of such depraved beings, and that their abominable conduct proceeds from wickedness, or a barbarous pleasure in revenging, on innocent persons, the sufferings which they have drawn on themselves by their imprudence and debaucheries.

There are persons, in short, who think to

escape by cheating nature, and by adopting an unnatural method with individuals of either sex. But not only are syphilitic and other complaints contracted in this way very frequent, but also much more malignant, especially ulcers, and much more difficult to cure.

CHAPTER XV.

OF THE NEW SYPHILITIC DISEASE WHICH APPEARED
TOWARDS THE END OF THE LAST CENTURY IN CANADA.

BETWEEN the years 1770 and 1780, there appeared in Canada, particularly in the *Bay of St. Paul*, a new species of syphilis, which was called “*The Disease of St. Paul’s Bay.*” This disorder has, in a few years, made the most rapid and fatal progress among the Canadians. Fathers transmit it to their children, and it is communicated by aliments and drink. When it has appeared in a family, it seldom spares a single individual. The virus seems to penetrate into certain bodies by absorption, and remains there for years without showing itself; at length it comes forth, and at this third epoch exhibits all the appearances of syphilis. The patients sometimes drag on a deplorable existence to a very advanced age, and lose successively their nose, eyes, the soft part of the palate, and sometimes the lower part of the skull. The inhabitants call it the English disease, because they pretend they got it from them. However, it is

known in other places by different denominations: in the bay of St. Paul, it is called *maladie des éboulemens*; in the environs of *Boucherville*, they give it the name of *lusta cruo*; at *Bertier* and *Sorel*, *mal de chicot*. In several districts it is designated by the words *vilain mal*, *mauvais mal*, *gros mal*; and the people in those parts where it has only lately appeared, call it the German disease, as if it had been brought by the German troops: but the most common name is *mal Anglais*.

In 1785, 5800 persons were found to be infected with this disorder, without counting those who would not declare they had it; nevertheless, it was still unknown to all the neighbouring Indians.

The first symptoms of it are little pustules on the lips, the tongue, and inside of the mouth, but rarely in the parts of generation. These pustules are of a corrosive kind, and children have almost had their tongue destroyed by them. At first they are like little *aphthæ*, filled with a whitish puriform humour; which is so virulent, that it infects those who use the patient's spoon, glass, or pipe, and has even been observed to be communicated by linen, clothes, &c.

Whether the virus has got into ulcers by absorption, or has been spontaneously developed without any external ulcer, it shows itself by considerable swellings, or by nocturnal pains in the bones. These pains are relieved when the

ulcers appear in the inside of the mouth, or on the skin; but they are frequently attended with swellings of the glands of the neck, and arm-pits, and even of the groin: which sometimes inflame and suppurate, and in certain cases become hard and indolent. Some patients also feel pains in different parts that are more sensible in the night, or when they take violent exercise; and this happens at what may be considered the second period of the disorder.

During the third, a sort of scabby ulcers are formed on different parts of the body, which occasion considerable itching; and are not permanent, but disappear sometimes to come on again. The bones of the nose, palate, skull, pubis, thighs, arms, and hands, are attacked with caries and exostoses. At length complaints of the chest and cough come on; the appetite diminishes; the sight, smell, and hearing, are lost; and the fall of the hair is one of the last accidents which announce the approaching end of the patient. Sometimes all the symptoms appear simultaneously from the beginning of the disease.

In some cases, the patient drags for a long time a miserable life, and there are even cases where they have lived nineteen years in this deplorable state. A patient who had thus languished for twelve years, covered with ulcers and tumours of the bones, lost besides one of his calves by ulceration.

There are, however, certain constitutions

which do not seem so susceptible of contracting this disorder; and in fact, some persons remain free from it for several years; notwithstanding both sexes and all ages are in general equally exposed to it.

It is particularly contagious in the second and third periods.

Cases have occurred in which it has remained *latent* in the body for entire years, without showing itself by the least symptom.

The prevailing prejudice is, that it attacks only once in life, like the small pox, or the yaws; but experience has demonstrated the contrary.

In some, it ends by a fatal gangrene which attacks the toes; and *Dr. Borwmann*, who made this disease known, saw examples of it. A young man lost his two feet; another a leg, which came off at the knee-joint: both however survived.

The symptoms were generally aggravated after taking the remedies for some days; but afterwards disappeared.

The sheets, linen, and other articles about the patient, should be carefully washed and scoured before others make use of them.

It is especially by coition that it is communicated, which therefore should be abstained from entirely during the treatment.

A great number of children are found among the infected, but the same physician saw some of them get well without any medicine. This fact is proved by the instance of *John Simar*,

who was then nineteen, and had had the complaint from his infancy; he never took any remedy, and his mother even gave up nursing him while she was treated for it. It seems that some children have been preserved from it by the treatment which their mothers had previously undergone, though they had not been radically cured.

There is no remedy that ignorance, superstition, or necessity could suggest which the Canadians have not tried against this evil.

The roots of patience, burdock, sarsaparilla, &c. are the remedies commonly employed with apparent success; the decoction of the branches and bark of a species of pine called *Hemlock spruce*, and by the French *Sapinette de Canada*, has been particularly useful; and Dr. Bowmann has observed, that this remedy greatly accelerated the cure, though he never saw it radically obtained without the help of mercury: he also remarked, that this bark might be employed as a tonic, as well as bark of cinchona.

On the representations of *Governor Hamilton*, (who transmitted to the English government a detailed report by Dr. Bowmann, from which I have extracted these notes,) six surgeons were sent from England, in 1786, to Canada, to give gratuitous assistance to the unfortunate inhabitants, and especially to those afflicted with this dreadful disorder, and to stop the ravages of it which spread over whole families.

What is most remarkable in this disorder is,

that it seldom attacks the parts of generation, and that it can be contracted without coition, and even without immediate touch.

Dr. Bowmann, an excellent observer, speaks neither of gonorrhœas nor ulcers in the genitals; what is more, he affirms that the inhabitants of the bay of St. Paul grow rotten, and sometimes die of this disease without the least affection in the genitals. Such exact observations, made in our own time, force us to believe what the earliest writers have transmitted us concerning the propagation of syphilis, on its first appearance in Europe.

They agree in saying, that it declared itself in the same manner as the disease in question, when it began to appear in Europe, and in the first twenty or thirty years after; and many writers who have spoken of it during that same period, make no mention of the organs of generation being affected. Paracelsus, whom I have mentioned, chap. ii. vol. i., says expressly, that gonorrhœas scarcely ever had been observed as a symptom of syphilis till towards the year 1525. The disorder, therefore, must have been communicated before this time by the air, or by imple contact without coition. A father might of course give it to his children, or any other person in the house; and this dreadful disease was thus spread through whole families. It is not surprising that many governments at that time, convinced of the reality of this contagion, should have sent the infected to sequestered

spots, as was done by the magistrates of Edinburgh. On due consideration, this contagious disease in Canada, as well as the *Sibbens*, of which I shall speak in the next chapter, seem to me to present the identical picture of syphilis in the 15th century.

CHAPTER XVI.

OF THE CONTAGIOUS DISEASE KNOWN IN SCOTLAND BY
- THE NAME OF SIWIN OR SIBBENS.

FROM the best information that I have been able to obtain concerning this complaint, I consider it as a species or variety of the syphilitic disease, perfectly similar in its manner of propagation and symptoms to the contagious disease of Canada in the preceding chapter, and very like syphilis on its first appearance in Europe. It has also a great resemblance with a disease known in Africa and America by the name of *yaws*, of which I shall speak in the next chapter.

It is particularly propagated by eating or drinking out of the same vessels with the infected persons, and consequently the symptoms commonly appear in the mouth and throat exactly like syphilitic ulcers. But there are several examples of the disease being communicated by the lips or nipples of nurses who had ulcers in those parts. The natives are persuaded that it is easily transmitted from infected parents to the foetus in the uterus, and to

children by ulcerated nipples, and even by the milk alone of an infected nurse, without ulcers. Those of the mouth and throat, when left to themselves, quickly corrode and destroy the veil of the palate, the uvula, and tonsils; and frequently extending to the neighbouring bones, soon after produce *caries*. But the action of the virus is far from stopping there, it extends to the bones of the nose, and the face itself is covered with hideous corrosive ulcers extending to the eyelids. At other times there appear in different parts of the body, and especially in the face, copper-coloured spots, which are soon charged with scabby crusts, or hard and warty tubercles, accompanied with pains, and an oozing of a viscous and fœtid matter. But what particularly marks this species of syphilis, and likens it to that of the 15th century, and to the yaws, (*Pian or Epian*,) are the spongy or fungous excrescences, which come on the skin wherever there is the least spot, scratch, or ulcer; and it is from the resemblance which these excrescences have to the wild raspberry in that country, called in the Gaelic language, *Siwin*, that the natives have called the disease *Siwin*, *Sibben* or *Sibbens*.

Another remarkable circumstance is, that the genitals are rarely affected by this complaint, except when it has been neglected, and has made great progress. As those who have it conceal it as long as possible, it is frequently fatal.

All these symptoms which we have mentioned can be cured by no other means but a complete mercurial course.

This disease was formerly very common in Scotland, especially in Ayrshire and Galloway; but, by the care of some enlightened and humane persons, it has become for some years past much less frequent than formerly. At present it is principally to be found among the poor and their children; and as they are at the same time not so attentive to cleanliness, and therefore often attacked with the itch, some inattentive observers have taken the *Sibbens* for the itch, or as a complication of it with syphilis; but the characteristic symptoms I have just mentioned evidently distinguish it from every other complaint, though in fact it is often complicated with the itch. A friend of mine who has had frequent occasion to see the *Sibbens*, assured me that though the infection is generally communicated in the manner above-mentioned, there are, particularly now, frequent examples of its propagation by the genitals, which, in this case, are attacked the first.

Those who wish for more details will find a circumstantial description of this disease by Gilchrist, in the *Edinburgh Physical and Literary Essays*.

But there is a curious and instructive case, which deserves a place here. Some years ago, I attended a person who was persuaded that he had caught the syphilis by the mouth, fifteen or

twenty years before; and though he had stopped the progress of it by mercury, which he took from the beginning and afterwards in different forms, he was never radically cured. Such, indeed, was the state of his body, that mercury, given in any way, had no action on his complaint. The disorder, though stopped in appearance, made constant, though very slow progress; the uvula and tonsils were in great part destroyed: and he had constantly ulcers at the back of the mouth, which appeared and went away; but affecting the orifice of the Eustachian tubes, produced a very disagreeable sensation in the ears and head. But the symptom of which he complained the most was, a dull pain behind the veil of the palate, occupying, according to his description, all the basis of the skull, attended from time to time with sharper pains, which seemed to run across the nose, the cheek-bones, the ears, and the head. When these symptoms were violent, there appeared at the same time a particular redness in the glans and prepuce, with sharp pains; but he had neither running nor ulcer in those parts. He was sometimes without any uneasy feel for whole days, but afterwards, these symptoms tormented him as it were with fresh vigour. For fear of getting any new infection, he had not had any connection with woman for several years, and he did not even dare to kiss them, having several times perceived from that sort of touch, since his disorder, a violent attack in the throat, &c. When-

ever I gave mercury to him, he experienced relief for two or three days, but after that short period, the symptoms evidently grew worse, and therefore at length I refused to give it him. I tried all other means I could think of, and sometimes relieved him for weeks together, but without a radical cure; and the last time I saw him he was much in the same state as at first. I have since lost sight of him.

CHAPTER XVII.

OF THE DISEASE CALLED YAWS, EPIAN, OR PIAN, OR
BOBAS, IN THE BRAZILS.

THE African name *Yaws*, which means raspberry, and thence called by Nosologists by the barbarous Latin word *Frambæsia*, is given to a disease, of which the characteristic symptom is a warty eruption in the face, something like a raspberry. *

This disease, which seems to be endemic in many parts of Africa, is now very common in the West Indies and South America; and the French have given it the name of *Pian* or † *Epian*, but the Portuguese in Brazil call it *Bobas*. It is less common in the United States, where it chiefly affects the negroes.

I can find no trace of this disease in the Greek or Latin authors, unless it be their *Thymus*;

* I have observed in the preceding chapter, that the word *Siwin* means the same in the Celtic tongue. In my *Nosology*, I have given it the more appropriate name of THYMOSIS.

† Some authors, I know not why, consider the *Pian* as a different disease from the *Epian*, or *Yaws*. — Dr. *Moley* thinks the *Yaws* is occasioned by a virus communicated by coition with animals.

but I find a striking resemblance between this complaint and the *Siwin*, and also with the syphilis of the 15th century, especially when comparing its symptoms with those which distinguished it when it began to appear in Europe. It is this which determined me to mention it, and even to write a particular chapter upon it.

We find from the testimony of all the cotemporary authors, that the characteristic symptom of syphilis on its first appearance in Europe, was warty excrescences on the skin, which principally disfigured the face, which was rendered hideous by their number and size, and the ichorous and foetid matter which was discharged from them. This eruption terminated by a desquamation, and sometimes by horrible ulcerations of the skin. This symptom, which undoubtedly gave rise to the French name *Vérole*, has fortunately disappeared in Europe. Nothing is more like this eruption or cutaneous excrescence than the *Yaws*.

The latter disease has, moreover, this in common with the syphilis of the 15th century, that the eruption on the face spreads by degrees over the whole body, and produces bad ulcers in different parts; attacks the bones, causing dreadful pains, exostoses, and caries; sometimes the virus falling on other parts, produces copious discharges of a puriform or ichorous matter, from the eyes, nose, and ears. I request my readers to consult the authors cotemporary with the first appearance of the syphilitic disease, and those who wrote

on it, ten or twenty years after, and then form their judgment.

The negroes in the Islands and in America are the most subject to this disease, which is believed to be endemic, particularly on the Gold Coast of Africa, and to be original in that country, from which it was transported to America. It is one of the most terrible, most hideous, and most disgusting diseases. The whole body is covered with large ulcers, and the patient is reduced by degrees to a mere skeleton, incapable of any service. It is very easily communicated, and they are therefore obliged to separate carefully the affected negroes from the healthy. Adults, though they seem perfectly cured, hardly ever recover their former health. The negroes say that medicines drive it into the bones; and they feel every change of weather the rest of their lives; sometimes they become lame of one or more limbs, or are incapable of moving them for some time. They are obliged to confine themselves to a certain diet for some months after they are cured, to prevent a relapse; and a deviation from this regimen, even after many years, produces violent pains in the joints.

This disease is easily communicated, and a single person, a child or adult, infects in a very short time all those with whom it has had the slightest communication. It is caught without coition, by living in the same room with a patient, and also by a singular species of inoculation, which is performed by a little fly,

that abounds in Brazil. These flies appear in great numbers early in the morning, but less during the day and the heat of the sun. After having rested on any infected person, they will communicate the virus to a person in health, by fixing in the corners of the eye-lids or lips, or any part of the skin that is slightly broke. It is also easily communicated by coition.

What is very remarkable and particular in this disease is, that every body in Brazil is persuaded that the same person is never attacked twice; whence the negresses are in the habit of inoculating their children with it, which is found to make it less violent.

The ulcers on the skin are sometimes very deep, and leave a scar of a pale white, and very disagreeable colour.

It is generally believed that it may be radically cured by mercury; but others think that mercury has not that effect, and that sulphur is the chief remedy by driving the virus to the skin.

The complaint, as I have said, is communicated by contact with an infected person, and frequently by flies above-mentioned, which, fixing on the face of the patient, sucks the poison, and settling afterwards on a healthy person, inoculates him; the disease appears some time after, but is then only local. In these cases, it is radically cured by simple topical remedies; but if the eruption has lasted some time, if the virus has occasioned ulcerations, and taken root, it seems, like the

syphilitic virus, to be absorbed into the blood, and depositing or fixing itself in some part of the body, produces particular effects, and forms what is called a *constitutional disease*.

These hideous eruptions and warty excrescences, which were a common and general symptom of syphilis during the first part of the 16th century, are now never seen in Europe, and I have never met with a single example in my practice.

It appears from these observations, that the virus of the *yaws*, like other poisons or acrimonies which affect the human body, may be absorbed into the system, remain quiet or latent a longer or shorter time, and show themselves afterwards by great weakness, melancholy, headache, blindness, palsy, dyspepsia, asthma, vague pains, &c.; to which sometimes succeeds a fever more or less violent, which is then attended or followed by a cutaneous eruption, and the other evident symptoms of the *yaws*. In these cases, the disease is never radically cured but by a mercurial course, while an original and local eruption of the face is, in general, easily cured by a solution of sulphate of copper.

I am confirmed, in all that I have advanced in this chapter, by the judicious observations on several diseases of hot climates, and especially this, published a few years ago by *Dr. Læfler*, who often saw it in Africa and America.*

* *Beyträge zur arzeneywissenschaft*. 1 Theil. Leipzig, 1761, 8vo.

The opinion in America, that the *yaws* never attacks the same person twice, is conformable to what the Scotch believe of their *sibbens*, and is principally applicable to the warty eruption on the skin, which is the most evident symptom of this disease; for they do not deny that one may be affected with the *yaws* without the eruption. We do not know for certain if the *yaws* can be caught from the air without immediate contact; but the constitution is certainly very often affected without the least complaint in the genitals.

The inoculation for the *yaws*, practised by the negro women on their children, seems to confirm the general opinion of its affecting the same person only once. This fact, if well ascertained, would distinguish the *sibbens*, as well as the *yaws* or *pian*, essentially from the venereal disease, or syphilis, properly so called.

It would be very interesting to have an exact knowledge and description of the disease which, according to *Hornemann*, is called in Africa the *mal de Soudan*, and which is communicated like the syphilis; the Canada disease, the *sibbens*, and the *yaws* or *pian*, by coition, and which cannot be cured by mercury. It is not known if this disease will attack persons only once.

The endemic disease of *Amboyna* and the Moluccas, called by the Dutch *Amboynense poken*, (*variola Amboynensis*), which *Sauvages* has improperly placed in the genus *scrofula*, (*scrophula Molucana*), or, (*le farcin des Mol-*

luques,) seems to me to be a modification of syphilis, or a species of elephantiasis. An eruption of hard tubercles comes on the face, arms, legs, and at length on the rest of the body, without there having been coition, which ulcerating, exude a very acrid viscous matter, which causes violent itching, succeeded by hollow and deep ulcers, the borders of which are callous and elevated.

CHAPTER XVIII.

OF THE ELEPHANTIASIS, OR TUBERCULOUS LEPROSY.

THIS disease must not be confounded with that monstrous swelling of the legs, which has also been called elephantiasis, but which, in my Nosology, I have named *elephantopus*, nor with the white leprosy of the Greeks. *Sauvages*, after the Arabs, has given it the name of black leprosy; but the name of elephantiasis is most common, and seems the best, as it makes the skin like that of the elephant, unequal, tuberculous, rough, and hideous, scattered over with many fissures and ulcers. It is the same which the Greeks called *leontiasis*, probably because it gives the countenance a ferocious look like that of a lion. The Arabs still call it *daïl 'asad**; which signifies the same as elephantiasis, and more frequently *judham* or *juzam*. This disease, as I have remarked, chap. i. vol. i. of this work, was also well known to the Jews; and Mahomet points it out distinctly: *Fly a person afflicted with the JUDHAM as you would fly a lion.*

* See Asiatic Researches, vol. ii. 4to. printed at Calcutta.

The joints of the extremities suffer principally towards the last period of this disease, and end by often falling off without any sensation. *Hilary* has called it the leprosy of the joints; but as, towards the end, the whole body is covered with ulcers, *Paulus Ægineta* called it *the universal ulcer*.

From this description, it is clear that this disease has a great analogy with that of Canada, with the sibbens, and the yaws or pian.

This disease was very common in Europe before the appearance of syphilis, but it has since disappeared, and an example of it is now scarcely to be found. It is this assemblage of circumstances which probably suggested to *Mr. Kurt Sprengel* the ingenious idea that the syphilitic disease owed its origin to a combination of elephantiasis, or the tuberculous leprosy, with the epidemic and pestilential disease, which desolated a part of Europe in the 14th, and part of the 15th century.

The elephantiasis, or tuberculous leprosy, (*leontiasis* of the Greeks,) is a disease still very frequent in hot climates in general. It has long been known in Hindostan by the name of *khora*. Exact and attentive observers have there remarked, that the disease called the *Persian fire* in that country, seems to be the same as the syphilitic disease in Europe, and often ends by elephantiasis, especially if ill-treated. Nevertheless, they are persuaded that the *khora* sometimes arises also from other causes, as

unwholesome diet, fish, and milk, provocative medicines, or the use of veal fattened by the butchers with what is called *bâlâwar*.

The first symptoms of this terrible disease are, a general debility of the body, and an universal redness of the skin, particularly the face, the voice hoarse, the fall of the hair, a bad smell in the perspiration and breath, whitlows on the toes and fingers, the skin cracks in several parts, and is covered with tubercles, the hands and feet in time are entirely covered with corrosive ulcers, and at length the toes, and even the feet, drop off, and the patient dies miserably. The name *judhâm*, which the Arabs have given to this disease, expresses this erosion, fall, or loss of the extremities, which happens in its last period. This disease is very contagious, and the inhabitants of Hindostan generally consider it as much so as the measles or small-pox; and they believe it also to be hereditary for many successive generations.

Mercury, far from curing this dreadful disease, even when it is the consequence of syphilis, only makes it worse. Mild purgatives repeated, together with the external use of alkaline remedies, sometimes cure it, but seldom. The old Bramins possess the art of curing it infallibly and radically; and, it is said, by means of the white oxyde of arsenic. *

I have never seen this disease as it appears in

* See Asiatic Researches, vol. ii. 4to. Calcutta.

the hot climates, or even sometimes still in Europe; but I have seen several cases of obstinate and inveterate syphilis attended with symptoms more or less resembling this terrible complaint, such as inflammation, an ugly redness of the eye-lids, fall of the hair, whitlows of the fingers, with suppuration and loss of the nails on the feet and hands, a monstrous swelling in the inferior extremities, covered with scabby or scaly crusts, and attended with violent pains and itchings, which resisted all mercurial preparations.

CHAPTER XIX.

A GENERAL TABLE OF ALL THE DIFFERENT MERCURIAL PREPARATIONS AND COMPOSITIONS THAT HAVE BEEN EMPLOYED IN MEDICINE DOWN TO THIS TIME.

I.—*Mercury, liquid or metallic.*

Preparation by which mercury is simply purified.

Pure mercury, or purified mercury.

Hydrargyrum purificatum. *Ph. Syph.*

Syn. Argentum vivum. *Offic.*

Mercurius crudus purificatus.

Anglis. Quicksilver; crude purified mercury.

Germanis. Reines quecksilber.

Gallis. du mercure purifié.

Præparat. Decoctum hydrargyri purificati.

II.—*Mercurial Oxydes.*

Preparations in which mercury combined with oxygen is changed into an oxyde.

Pure oxydes of mercury.

Oxyda hydrargyri.

Calces hydrargyri, seu mercurii. *Offic.*

A.—Preparations in which mercury is changed by the first degree of oxydation into a grey or black oxyde, which is reduced to metal by the simple contact of the rays of the sun.

Grey-black oxyde of mercury.

Oxydum hydrargyri griseum, *seu* nigrum.

I. By simple AGITATION long continued with access of the atmospheric air. *

Æthiops per se. *Boerhaave.*

II. By the TRITURATION of mercury in free air, with different animal, vegetable, or mineral substances ; such as,

1°. By animal or fixed vegetable GREASE or oil ; as hog's-lard, the adipocire of the phytseters, (vulgarly, spermaceti,) the butter of cacao, &c.

Grey mercurial ointment.

Unguentum hydrargyri griseum. *Ph. Syph.*

Syn. Unguentum mercuriale, *seu* Neapolitum.

Off.

Unguentum ex hydrargyro cæruleum.

Ph. Ed.

Unguentum hydrargyri mitius et fortius.

Ph. L.

* Fourcroy was the first who discovered and taught in his Lectures, that this change of the mercury into a black powder was a real oxydation.

COMPOSITA.

Unguentum mercuriale cum terebinthinâ.
Off.

Unguentum mercuriale. *Ph. Dan.*

Emplastrum mercuriale. *Off.*

Emplastrum ex hydrargyro. *Ph. Ed.*

2°. By the vegetable MUCILAGES or GUMS: such as the gum of the *Acacia vera*, and other species, commonly called gum arabic, or gum adragant, which comes from the *Astragalus Tragacantha*, &c.

Gummy oxyde of mercury.

Oxydum hydrargyri gummosum.

Syn. Hydrargyrum gummosum.

Mercurius gummosus of *Plenck*, the inventor.

COMPOSITA.

Pilulæ ex hydrargyro gummoso. *Ph. Syph.*

Pilulæ ex mercurio gummoso. *Plenck. Ph. Chirur.*

Solutio mercurialis gummosa. *Ibid.*

Potio mercurialis. Dispensatorii novi Brunswicensis.

Lac mercuriale. *Plenck. Ph. Chirur.*

Syrupus hydrargyri. *Pharm. Suec.*

3°. By SACCHARINE SUBSTANCES.

a. — With sugar-candy.

Sugared oxyde of mercury.

Oxydum hydrargyri saccharatum, seu hydrargyrum saccharatum.

COMPOSITA.

Trochisci ex oxydo hydrargyri saccharato.

Ph. Syph.

b. — With honey.

Honied oxyde of mercury.

Oxydum hydrargyri mellitum.

Syn. Hydrargyrum mellitum.

Mel hydrargyri.

Mel hydrargyratum. *Ph. Syph.*

COMPOSITA.

Pilulæ Bellosti.

c. — With the extract of liquorice. (*Glycyrrhiza glabra.*)

Liquoriced oxyde of mercury.

Oxydum hydrargyri glycyrrhizatum.

COMPOSITA.

Pilulæ ex oxydo hydrargyri glycyrrhizato.

Ph. Syph.

4°. With conserve of roses.

Pilulæ hydrargyri. *Ph. Lond. et Edinb.*
1809.

Note.—There is no easier method of making the globules of mercury disappear than the conserve of the petals of roses : but in my opinion, it remains to be determined whether the mercury in this preparation is simply oxydated, or if it is not entirely decomposed by the astringent principle of the roses. I have given these pills to

several patients for a long time without any symptom of salivation; in some, the salivary glands were a little affected; in many, the complaint was only palliated.

5°. By the RESINS or BALSAMS; as, turpentine, the liquid resin of the *Pinus balsamea*, or *Copaifera officinalis*, the balsam of the *Myroxylon peruiferum*, &c. &c.

Oxyde of mercury, with the balsams or resins.

Oxydum hydrargyri cum resinis aut balsamis.

COMPOSITA.

Pilulæ ex hydrargyro terebinthinato. *Ph. Syph.*

Pilulæ mercuriales sialagogæ. *Ph. Dub.*

6°. By the CARBONATE OF LIME; as, chalk, crab-stones or scales, &c.

Oxyde of black mercury, with a calcareous absorbent.

Oxydum hydrargyri calcareum.

Syn. Hydrargyrum cum cretâ, aut cum magnesiâ. *Ph. Dub.*

III. By PRECIPITATION.

1°. By precipitating mercury from its nitric solution by pure ammonia, or ammonia mixed with alcohol, and washing the precipitate with a great quantity of water.

Grey oxyde of mercury by precipitation.

Oxydum hydrargyri griseum, præcipitatione paratum.

Syn. Pulvis hydrargyri cinereus. *Ph. Dub.*
Turpethum nigrum. *Off.*

2°. By precipitating the mercury from its solution in nitric acid by lime-water.

Grey-black oxyde of mercury, by precipitation.

Syn. Mercurius solubilis. *Hahnemann.* *

3°. By precipitating mercury from its solution in nitric acid, by potash.

Brown oxyde of mercury.

Syn. Mercurius præcipitatus fuscus. *Wurtz.*

B. — Preparations in which the mercury more oxydated, red, white, or yellow, is not reduced by the contact of the sun's rays.

1°. Red oxyde of mercury.

Oxydum hydrargyri rubrum.

a. — By simple exposure to fire, with the access of air.

Red oxyde of mercury per se.

Oxydum hydrargyri rubrum per-se.

Syn. Mercurius calcinatus per se.

Mercurius præcipitatus per se.

b. — By the solution of mercury in nitric acid, and the expulsion of the acid afterwards by fire.

* The author directs the dry nitrate of mercury to be dissolved in alcohol, and to mix the solution with lime-water prepared from oyster-shells.

Red oxyde of mercury by the nitric acid.
 Oxydum hydrargyri rubrum acido nitrico
 confectum.

Syn. Mercurius corrosivus ruber.
 Mercurius præcipitatus ruber.
 Mercurius corallinus.
 Mercurius tricolor.
 Pulvis principis.
 Arcanum corallinum.
 Panacea mercurii.
 Panacea mercurii rubra.

COMPOSITA.

Unguentum syphiliticum rubrum. *Ph. Syph.*
 Balsamum ophthalmicum rubrum. *Ph. D.*
 Balsamus mercurialis. *Plenck. Ph. Chir.*
 Unguentum ophthalmicum. *Saint-Yves.*
 Unguentum ophthalmicum rubrum. *Ph. D.*
 Unguentum mercuriale rubrum. *Ibid.*
 Unguentum pomatum rubrum. *Ibid.*

2°. White oxyde of mercury.

Oxydum hydrargyri album.

By precipitating mercury from its solution in muriatic acid by potash and soda.

N.B. The white precipitate of the shops, being a triple salt, *see lower down.*

3°. Yellow oxyde of mercury.

Oxydum hydrargyri luteum.

See below; Sub-sulphate of mercury.
 (subsulphas hydrargyri.)

III. — *Mercurial Salts.*

Preparations in which the oxyde of mercury is combined with acids, and forms mercurial metallic salts.

a. — WITH THE MINERAL ACIDS.

- | | | |
|------------------------|---|---------------------------|
| 1. The muriatic acid | - | muriate of mercury. |
| 2. Oxymuriatic acid | - | oxymuriate of mercury. |
| 3. Nitric acid | - | nitrate of mercury. |
| 4. Nitro-muriatic acid | - | nitro-muriate of mercury. |
| 5. Sulphuric acid | - | sulphate of mercury. |
| 6. Phosphoric acid | - | phosphate of mercury. |

b. — WITH THE VEGETABLE ACIDS.

- | | | |
|------------------|---|----------------------|
| 1. Tartaric acid | - | tartrate of mercury. |
| 2. Oxalic acid | - | oxalate of mercury. |
| 3. Acetic acid | - | acetate of mercury. |

c. — WITH THE MINERAL ACIDS.

- 1°. Mercury combined with the muriatic acid.
 Submuriate of mercury. (Sub-chlorure of mercury. THENARD.)
 Submurias hydrargyri.

a. — *By sublimation.*

Submuriate of sublimated mercury.
 Submurias hydrargyri sublimatione paratus.

Syn. Mercurius dulcis sublimatus. *Off.*

Calomel seu calomelas. *Off.*

Aquila alba.

Panacea mercurialis.

COMPOSITA.

Pilulæ Plummeri. *Ph. Ed.*

Pilulæ alterantes Plummeri. *Off.*

Pilulæ mercuriales purgantes.

Pilulæ catarrhales purgantes. *Ph. D.*

Pulvis Plummeri. *Off.*

Mel è submuriate hydrargyri. *Ph. Syph.*

Unguentum è submuriate hydrargyri. *Ph. Syph.*

Murias hydrargyri ammoniacalis ferratus.

Mercurius dulcis martialis *Harthmanni*.*

b. — By precipitation.

1°. From its nitric solution by muriate of soda.

Submuriate of precipitated mercury.

Submurias hydrargyri præcipitatione paratus.

Syn. Mercurius præcipitatus dulcis. SCHEELE.

COMPOSITA.

Lotio syphilitica nigra. *Ph. Syph.*

2°. From its nitric solution by ammonia, by the muriate of ammonia, or by the muriate of ammonia and potash.†

* This triple salt is prepared by triturating and sublimating the mercury with what remains in the retort, after the sublimation of what is called *Flores salis ammoniaci martial.*

† All these precipitates are triple mercurial salts.

Ammoniaco-mercurial muriate.
Murias hydrargyri ammoniacalis.
Mercurius præcipitatus albus. *Off.*

3°. From its muriatic solution by potash or soda.

Muriate of mercury with excess of oxyde.

4°. From its muriatic solution by ammonia, or the muriate of ammonia.

Ammoniaco-mercurial muriate.

5°. From its muriatic solution by the muriate of ammonia and potash.

Ammoniaco-mercurial muriate.
Murias hydrargyri ammoniacalis.

Syn. Submurias hydrargyri ammoniacalis. *Ph. L.*
Mercurius præcipitatus albus. *Off.*

COMPOSITA.

Unguentum syphiliticum album. *Ph. Syph.*
Linimentum mercuriale. *Off.*

II°. Mercury combined with the oxymuriatic acid.

Oxymuriate of mercury. (Per-chlorure of mercury. THENARD.)
Oxymurias hydrargyri.

A. — *By sublimation.*

Oxymuriate of mercury by sublimation.
Oxymurias hydrargyri sublimatione paratus.
Mercurius sublimatus corrosivus. *Off.*
Mercurius corrosivus albus. *Ph. Suec.*

COMPOSITA.

- a. — Solutio sublimati spirituosa.
Solutio mercurii sublimati corrosivi. *Off.*
Mistura mercurialis. *Ph. Suec.*
Liquor of Van Swieten.
- b. — Pilulæ è mercurio corrosivo albo. *Ph. Suec.*
- c. — Lotio syphilitica lutea. *Ph. Syph.*
Aqua phagædenica. *Off.*
Liquor mercurialis. *Off.*
- d. — Solutio sublimati balsamica. *Plenck.*
- e. — Liquor ad condylomata. *Ph. Syph.*
Aqua caustica pro condylomatibus. *Plenck.*

B. — *By crystallization.*

Oxymuriate of mercury crystallized.
Oxymurias hydrargyri crystallizatione paratus.

III°. Mercury combined with nitric acid.

A. — *By crystallization.*

Nitrate of mercury crystallized.
Nitras hydrargyri crystallizatus.
(See above, *Red oxyde of mercury.*)

B. — *By solution.*

Supernitrate of mercury.
Supernitras hydrargyri.

Syn. Acidum nitri hydrargyratum.

Solutio mercurii. *Ph. Ed.*

Nitric solution of mercury.

Solutio hydrargyri nitrica.

COMPOSITA.

Unguentum syphiliticum citrinum. *Ph. Syph.*

Unguentum ex nitrate hydrargyri.

Unguentum citrinum. *Off.*

Mercurius liquidus. *Lemery.*

Aqua mercurialis. *Charras.*

Aqua phagedænica.

Aqua grisea. *Gohlii.*

Liquor *Bellosti.*

Anti-venereal drops.

Vegetable syrup.

Mercurial syrup of *Bellet.*

A. — Mercury precipitated from its nitric solution by ammonia.*

Black oxyde of mercury, with the ammoniaco-mercurial nitrate.

Oxydum hydrargyri nigrum cum nitrate hydrargyri ammoniacali.

B. — Mercury precipitated from its nitric solution by ammonia dissolved in alcohol.

* This precipitate is a triple mercurial salt, of a greyish colour, mixed with the black oxyde of mercury, and the ammoniaco-mercurial nitrate. The liquor which remains after this precipitation, being evaporated, gives also a triple mercurial salt, white, which is ammoniaco-mercurial nitrate, or the *white turbith* of some shops.

Black oxyde of mercury, with the ammoniaco-mercurial nitrate, or the black ammoniaco-mercurial nitrate.

Nitras hydrargyri ammoniacalis niger.

Syn. Turpethum nigrum.

Mercurius præcipitatus niger.

C. — Mercury precipitated from its nitric solution by copper.

Mercurius præcipitatus viridis. *Ph. Brunsw.*

iv°. Mercury combined with the nitro-muriatic acid, (*aqua regia*).

Nitro-muriate of mercury.

Nitro-murias hydrargyri liquidus.

Syn. White drops of Dr. Ward, that is, a solution of mercury in the nitro-muriatic acid, or in nitric acid, mixed with muriate of ammonia.

v°. Mercury combined with the sulphuric acid.

Subsulphate of mercury.

Subsulphas hydrargyri.

Syn. Sulphate of yellow mercury with excess of oxyde.

Sulphas hydrargyri luteus cum excessu oxydi.

Vitriolum mercurii.

Turpethum minerale. *Off.*

Mercurius emeticus flavus. *Off.*

Mercurius præcipitatus luteus. *Ph. Dan.*

Turbith mineral.

By solution.

Subsulphate of liquid mercury.

Supersulphas hydrargyri liquidus.

Syn. Solutio hydrargyri sulphurica.

Oleum hydrargyri. *Off.*

Acidum sulphuricum hydrargyratum.

vi°. Mercury combined with the phosphoric acid.

Phosphate of mercury.

Phosphas hydrargyri.

By precipitating mercury from its nitric solution with fresh urine.

Phospho-muriate of mercury.

Phospho-murias hydrargyri.

Syn. Rosa mineralis.

Mercurius præcipitatus roseus.

Précipité rosé of *Lemery*.

vii°. Mercury combined with tartaric acid.

Tartrate of mercury.

Tartras hydrargyri.

a. — Mercury precipitated from its nitric solution by the tartaric acid.

Precipitated tartrate of mercury.

Tartras hydrargyri præcipitatus.

Syn. Pulvis constantinus.

b. — Mercury precipitated from its solution in the oxymuriatic acid, by the subtartrate of potash.

Tartrate of mercury precipitated white.

Tartras hydrargyri præcipitatus albus.

Syn. Pulvis mercurialis argenteus.

c. — Mercury combined with the supertartrate of potash.

Tartrate of mercury with potash, (a triple salt.)

Mercurius tartarisatus. *Selle.*

Terre feuilletée mercurielle. *Pressavin.*

viii°. Mercury combined with the acetic acid.

Acetate of mercury.

Acetas hydrargyri.

a. — *By simple trituration.*

Syn. Terre feuilletée mercurielle, of *Fourcroy.*

Sugar-plums, or pills of *Keyser.*

b. — *By precipitation.*

By precipitating mercury from its nitric solution by the acetate of potash.

c. — *By solution.*

By dissolving the red oxyde of mercury in acetic acid, and evaporating the solution to dryness.

d. — *With the animal acids.*

Mercury combined with the Prussic acid.

Prussiate of mercury. (Proto-hydrocyanat of mercury. *Thenard.*)

IV. — *Mercurial Sulphurets.*

PREPARATIONS in which mercury is combined with sulphur.

A. Sulphuret of mercury.

Sulphuretum hydrargyri.

a. — *By trituration, or*b. — *By fusion.*

Black sulphuret of mercury.

Sulphuretum hydrargyri nigrum.

Syn. Æthiops mineralis. *Off.*

COMPOSITA.

Æthiops antimonialis. *Off.*c. — *By precipitation.*

By precipitating mercury from its solution
in nitric acid, by the sulphuret of potash
or lime.

Black sulphuret of mercury by precipita-
tion.Sulphuretum hydrargyri nigrum, præcipita-
tione paratum.*Syn.* Turpethum nigrum. *Off.*

B. Red sulphuret of mercury.

Sulphuretum hydrargyri rubrum.

Syn. Cinnabaris nativa.Cinnabaris artificialis. *Off.*Cinnabaris factitia. *Off.*

COMPOSITA.

Pulvis antilyssus sinensis.

Cinnabaris antimonialis. *Off.*

V. — *Mercurial Amalgamations.*

PREPARATIONS in which mercury is combined with other metals, in the form of mercurial amalgamations.

Mercurial amalgamations.

Amalgamata hydrargyri.

Amalgamation of the oxymuriate of mercury with gold, by Hœchener, in the beginning of the 16th century.

CHAPTER XX.

CHEMICAL REMARKS ON THE PRINCIPAL MERCURIAL
PREPARATIONS IN THE FOREGOING TABLE.

THE greatest part of the mercurial preparations which I have collected together in the foregoing table, have been recommended at different times, by different chemists and practitioners, for the cure of syphilitic complaints. I shall here only examine those which are principally employed at present, and which have maintained their reputation since they were first introduced into practice, or which, having been discovered in our time, seem to possess qualities that entitle them to the same confidence.

All these different preparations are used in various forms ; in powders, pills, boluses, solutions, lotions, injections, ointments, &c. some externally, but the greatest number internally.

I. — OF PURE MERCURY.

MERCURY in its metallic state is commonly called quicksilver, or when purified by distillation, pure mercury. (*Hydrargyrum purificatum.*)

Mercury that is destined for medical use, and to form the different preparations, should be very pure. The greatest part of the mercury in commerce comes from *Istria*, in *Friuli*, and from the Palatinate; it passes through the hands of the Dutch, who often falsify it with lead and bismuth, without causing any sensible alteration in its fluidity or metallic splendor. But every physician who has the health of his patients at heart, will never employ mercury either internally or externally, without having ascertained that it is perfectly pure. For if it be used in an impure state, we may not only be deceived in its expected effects, but also do much injury to the patient. But as it is difficult to ascertain the purity of what is kept in the shops, every practitioner should purify it himself, or only employ it when purified in the following manner.

Mercury is found in mines either native, and then is called virgin mercury, or mineralized, and then it is named ore of mercury, and is purified by distillation.

These mines of mercury are of several sorts, and different forms. Native cinnabar, however, contains the greatest quantity of mercury. Though several authors recommend native cinnabar as a medicine, it is a fact that it is often united with arsenic or other heterogeneous substances. It is therefore a risk to employ it internally, and even externally; though it is sometimes of a finer colour than the artificial

one, the latter is, however, more to be depended upon in medical practice.

Mercury, in cinnabar, or other ores, being commonly mineralized by sulphur, the process of separation consists in uniting with the ore a substance that has a greater affinity for sulphur than for mercury. Such, for instance, are the alkaline salts, calcareous earths, iron, iron dross, &c. If any of these substances, therefore, (the least costly should be chosen,) is mixed with the ore, and the mixture exposed to heat in an alembic, it will unite with the sulphur; and the mercury, thus freed, will rise in the form of vapour, and pass into the receiver.

Interest unfortunately has taught the dealers in mercury to falsify it with lead, with which it is easily united. By adding bismuth, the cheat is rendered still more difficult to discover; for this amalgamation is much more fluid, and preserves better the metallic and silvery splendor of the mercury. It is evident, therefore, that the colour and brilliancy of mercury are not always certain signs of its purity; and we can by no means depend on the common purification of mercury, which consists in forcing it by pressure through a leather bag; because the amalgam, composed of mercury, lead, and bismuth, is often so complete, that though the mixture is a fourth of the whole mass, very little of these heterogeneous matters remains in the bag through which the mercury has been passed.

By washing the mercury with concentrated

vinegar, the lead is dissolved in the vinegar, which acquires a sweeter taste ; but all the lead is not destroyed by this operation.

The only certain method of purifying mercury is by distillation. Iron vessels are considered the best, as that is the only metal with which mercury refuses to unite, and because there is no danger of their being broke, as glass might, particularly from the great expansion of the mercury in this operation. The higher the mercury is made to rise before it is condensed, the more certain is its disengagement from the particles of lead, which cannot follow it into the receiver. The vessel, therefore, should be an iron pot, with a long straight neck, like a musket. But in order to condense the mercury better, and to have it perfectly pure, a piece of linen should be fastened to the end of the tube, and plunged two or three inches deep in vinegar. By this means all the mercury is obtained without loss ; the operator is exposed to no danger of explosion, and the mercury is perfectly freed from all particles of lead or bismuth which are dissolved in the vinegar, while the mercury is found perfectly pure in the bottom of the vessel.

Mercury well purified may also be obtained by distilling the oxymuriate of mercury, or some other mercurial salt, with a substance which has a greater affinity for the acid than the mercury.

Pure mercury should, 1°. When poured on a wooden table, form globules that always pre-

serve their spherical figure, and never lengthen out like a thread or a line. 2°. It should never be covered with a pellicle, but have a brilliant surface. 3°. When shaken with water, it should not make it blackish and dirty. 4°. When it is agitated or digested with vinegar, it should not give a sweetish taste to it. 5°. When put on the fire in an iron spoon, it should evaporate entirely, and leave nothing behind.

II. OF MERCURIAL OXYDES.

MERCURY is changed into a grey or blackish oxyde by trituration, and the access of atmospheric air, or more properly with oxygen gas.

1°. By triturating it with fixed animal or vegetable oils, or hog's-lard, under the name of grey mercurial ointment.

This is commonly prepared by triturating it with hog's-lard and turpentine. But this is a bad method; for the ointment thus prepared soon produces pustules on the skin, which prevent the frictions being continued. It is therefore better to prepare it by triturating the mercury with fresh hog's-lard well cleared with pure water, without the turpentine. This must be continued for several hours, until it is certain that all the globules have disappeared, and that it is completely reduced to a grey-black oxyde. This operation may be much helped and abridged by adding, during the trituration, a little oil of

almonds. It must afterwards be kept in a cool place, not only to prevent its becoming rancid, but that it may not melt; which would effect a separation, and consequently a precipitation of the mercury to the bottom of the vessel.

But notwithstanding all these precautions, patients are found whose skin appears so very irritable, that they cannot endure the ointment, even when thus prepared. This is greatly occasioned by the disposition which hog's-lard has to become rancid. In these cases, a little fresh white cerate may be mixed with the ointment, or it may be prepared merely with the mercury and the butter or oil of the cacáo. Or it would perhaps be better still to prepare it, by triturating the mercury with mutton-fat, till it is completely oxydated, and then add fresh purified hog's-lard. The mutton-fat is harder, and does not so soon grow rancid.

The method followed in general for preparing the grey mercurial ointment is very defective. It is commonly done in a marble or iron mortar, with iron pestles, and is very troublesome and laborious.

This arises from the mortars being concave, and thus presenting a very small surface. The mercury, therefore, cannot be so well divided, nor can the air touch it in so many points; on which account it is less quickly oxydated. For without the air it would not be oxydated at all, as the grease only serves to divide it and increase the contact of the air with its particles.

It seems that this preparation would succeed much better by triturating and incorporating the mercury with the animal fat or butter of cacao, &c. on a porphyry or marble table, with a muller of the same material, as painters grind their colours. It might perhaps be better previously to reduce the mercury into a grey oxyde, by means of a trituration long continued in a machine made on purpose, or else by adding to the mercury, before it is mixed with the fat, according to Fourcroy's advice, a little red oxyde or oxymuriate of mercury, which by trituration would give to the mercury a portion of oxygen, and thus greatly abridge the labour.

In the "Journal de Pharmacie," No. viii. p. 60. *Dupont* has recommended a method much preferable to what has been practised hitherto. He advises that the ointment should be prepared in very large mortars, very wide at the top; that pestles should be used which present a large surface; and that the mercury should only be added by small portions; that is, to put three ounces, for example, at once with one ounce of fat: after trituration for some minutes, the mercury presents a large surface; and as there is very little of it, and it does not tend to re-unite while it sticks to the sides of the mortar, and the layer is extremely thin, the absorption of the oxydating principle must be more rapid, inasmuch as there are more points of contact with the atmospheric air. In half an hour this quantity of mercury is perfectly oxy-

dated or extinguished, and must be taken out and set aside. The same operation must be repeated on a similar portion of mercury, and thus in eight hours together, you will have forty-eight ounces of mercury completely extinguished. The remainder of the fat must be added in equal weight ; and you will have six pounds of double ointment, which could not have been made in a fortnight, if a greater quantity of mercury had been used at a time ; because the layer being much thicker, the oxydised portion is that which is in contact with the atmosphere ; while that which is not, unites at the bottom, and does not receive the impressions of the air, being defended by the portion already oxydised, and occupying the upper surface.

Another quick and ingenious method of preparing the mercurial ointment, is to melt some soap prepared with olive or almond oil, cacao butter, or spermaceti, (*adipocire*,) and potash in boiling water, and to add by degrees a sufficient quantity of supernitrate of liquid mercury. By this process, the potash unites with the nitric acid, and the mercury with the grease. See *Unguentum ex hydrargyro extemporaneum*. Ph. Syph.

I shall speak of the other mercurial ointments made with other oxydes, or with mercurial salts, in the course of this chapter. See also Ph. Syph. *Unguentum ex hydrargyro*.

It had always been a problem among practitioners in syphilitic complaints, how to get the

linen cleaned which had been used during mercurial frictions. It is difficult to conceive how much linen is destroyed in this way, and it is only in hospitals that the great expense of it can be perceived.

But it is particularly felt, when, from ignorance, or want of precaution in the practitioner, patients have worn fine linen, and then have it washed with other linen in the usual way.

All this linen put together is inevitably stained for ever, and moreover every stain after some time becomes rotten, and falls into holes.

Another inconvenience is, that the complaint is sometimes discovered in persons who have the greatest interest to conceal it. How often have these stains been a source of trouble and discord in families!

Professor *Vauquelin*, of Paris, has communicated to the public, in the third volume of "*La Médecine Eclaircé*," &c. published by Fourcroy, a certain and not expensive method of washing linen stained by preparations of mercury and lead; which I shall here transcribe word for word.

"Having been employed to take stains out of a considerable number of fine shirts, handkerchiefs, napkins, &c. both of cotton and linen, I operated in the following manner:

"I first put some of the shirts that had not been to the wash into a ley made of *fifty parts of water, one of potash, and one and a half of lime*; when all the grease was dissolved by the alkali,

and nothing remained on the linen but the spots made by the oxyde of mercury in the mercurial ointment, I put it with the rest, which had already undergone the first operation in the wash-house, and I plunged it all into a tub, containing a liquid composed of *twelve parts of water and one part of oxygenated muriatic acid*, as strong as possible, and at the temperature of ten degrees. I left the linen in it till all the stains were gone, which requires more or less time, according to the quantity of matter to be dissolved. If more linen should have been put in than the acid can clean, it must be taken out, and a twentieth more of the acid being added, it must be put in again. I advise the linen to be taken out before the addition of the acid, as it might not mix exactly throughout, and might burn the parts of the linen on which it lighted.

“ When all the stains have disappeared, the linen must be well washed in spring water, and rinsed in a soap lather to take off the smell, and afterwards, if it is wished, to give it a fine white colour, it may be soaked for some hours in water, in which has been mixed one hundredth part of sulphuric or sulphurous acid. These quantities I have found answer best; but they may be changed in proportion to the quantity of linen, and the stains upon it; but in general, it is better to use the ley and the immersion twice, than to make them too strong, with the danger of burning the linen. This application of chemistry to domestic economy relieves

patients from the alternative of losing by mercurial treatment their fine linen, or of wearing stained and torn linen, which many persons could not bear the idea of.

“*Note.* When new tubs are used, care must be taken to put some oxymuriatic acid in them, some hours before, in order to destroy their colouring principle, and there must be no iron about them on any account.”

The *oxydes of white mercury* are not pure oxydes. The oxymuriate of mercury precipitated by potash or soda, or by the carbonate of potash or soda, is not entirely decomposed, as *Bayen* has well observed, but contains much oxymuriatic acid. Almost the half of this precipitate by potash is muriate of mercury. The same salt, precipitated by the carbonate of ammonia, forms a triple salt, composed of muriatic acid, ammonia, and oxyde of mercury. By precipitating the oxymuriate of mercury with lime-water, the precipitate is oxyde of mercury with a very little muriatic acid. The reddish or yellowish powder mixed with it is calcareous earth. Three drachms of oxymuriate of mercury, precipitated by lime-water, were found by *Bayen* to contain two drachms and seventeen grains of mercurial oxyde, eight grains of muriate of mercury, and thirty-two grains of red calcareous powder. It is evident from these experiments, that lime-water decomposes the oxymuriate of mercury better than the alkalies, and precipitates it in the form of oxyde; and the ammonia or muriate of

ammonia decomposes the same salt less than the fixed alkalies, and precipitates it almost entirely in the form of a triple salt, properly called ammoniaco-mercurial salt, or ammoniacal muriate of mercury. It must be observed also, that the precipitate by lime-water is reduced to quicksilver without addition.

The solution of mercury in nitric acid, precipitated by the carbonate of potash, is the sub-nitrate of mercury. Half an ounce of this precipitate contains, according to the same chemist, ten grains of nitric acid. The same solution, precipitated by ammonia, gives a precipitate of a grey colour, composed of nitric acid, ammonia, and oxyde of mercury. The same nitric solution of mercury, precipitated by potash, gives a powder of a sulphur colour, which is composed of sub-nitrate of mercury. The same solution, precipitated by lime-water, is of an olive colour, and always contains a portion of acid.

The red oxyde of mercury, (Oxydum hydrargyri rubrum,) is prepared in two ways. In the first, as much mercury is put into a matrass with a flat bottom, as will cover it to the height of a tenth of an inch or two; the neck of the vessel is then drawn out by fusion to a tube almost capillary, and the end of which is broke off, to give access to the air. The matrass is placed on a sand bath, and the fire is kept up sufficiently to make the mercury boil gently, which is continued till it is reduced to a red powder, called red oxyde of mercury per se.

The other method, which consists in the simple evaporation of the nitric solution of mercury, as I have described it further on, is easier and less expensive. It is called the oxyde of mercury by nitric acid (*oxydum hydrargyri acido nitrico confectum*).

The yellow oxyde of mercury. See further on, *Subsulphate of mercury*.

III. — OF MERCURIAL SALTS.

Mercurial salts are oxydes of mercury combined with an acid.

1°. *The submuriate of mercury*, (*submurias hydrargyri*,) or calomel, *calomelanos*, or sweet mercury. This salt, as it is commonly prepared by sublimation, is a very different remedy in different countries, in the different shops of the same country, and even in the same shop at different times. For this reason, I have given it up, and I employ instead of it the submuriate of mercury, prepared by precipitation.

The celebrated *Scheele* published the new method of preparing this salt by precipitation, by which it is always obtained of the same quality. Though it was known long before Scheele that mercury would unite with the muriatic acid by precipitation, it was little used in practice, because the proportions probably were not well known, and its effects were reckoned uncertain. I hope to please the

greatest part of my readers by inserting here an exact description of this process.

Put half a pound of mercury in a glass vessel, and pour on it the same quantity of nitric acid, diluted with an equal quantity of distilled water, in a long-necked vessel, of which the orifice is stopped with paper. Place this vessel in a warm sand bath; and some hours after, when the acid gives no more sign of any action on the mercury, increase the heat, till the solution is ready to boil. The same degree of heat must be kept up for three or four hours, taking care to shake the vessel from time to time, and at the end, the solution must be allowed to boil gently for a quarter of an hour. At the same time dissolve four ounces and a half of pure muriate of soda in six or eight pounds of water. Pour this solution, while boiling, into a large glass vessel, and mix the nitric solution of mercury with it by degrees also boiling, taking care to pour the mixture continually from one vessel to the other, to keep it in constant motion: afterwards put it aside to remain quiet. When the sediment has settled, decant the clear liquor, and then wash the precipitate several times with hot water, till it ceases to give any taste to the water. Put the precipitate thus obtained to drain on a filtre; it will have no acrid taste, but merely that of metal, and must be afterwards dried with a moderate heat.

One might suppose, that when the nitric acid ceases to effervesce with the mercury, that it is saturated with it; but this is far from being the

case, for the acid is still capable of dissolving a considerable quantity when the heat is increased. It is necessary to make the solution of mercury boil for about a quarter of an hour, in order to keep the nitrate of mercury in a liquid state, as it is very much disposed to crystallize. There generally remains some undissolved mercury at the bottom of the vessel ; but it is always better to put too much rather than too little, because the more the solution is saturated, the more submuriate is obtained.

The mercurial solution must be poured by little at a time, and with precaution, into the solution of muriate of soda, in order to prevent any undissolved globule of mercury from falling in at the same time.

Two ounces of muriate of soda would be sufficient to precipitate all the mercury ; but if only that quantity is used, it may easily happen, that some particles of the oxymuriate of mercury, which the water alone cannot completely separate, may be attached to this precipitate. This is no doubt the reason why the mercury, which is called white precipitate, is always corrosive. The muriate of soda, as well as the muriate of ammonia, has the property of dissolving a great quantity of oxymuriate of mercury. It is therefore well to employ four ounces and a half of muriate of soda, in order to separate entirely the oxymuriate of mercury from the precipitate.

The following facts prove that this precipitate is a good and real sweet mercury, or submuriate

of mercury. 1°. It is entirely insipid. 2°. The author sublimated it, and examined the portion which rose first, and which ought to have been corrosive, if the precipitate had contained any thing of that nature, since it is a known fact that the oxymuriate of mercury (corrosive sublimate) rises sooner than the submuriate (sweet mercury): but what rose during the whole sublimation was pure submuriate of mercury, exactly similar to what is obtained in the ordinary way. 3°. He mixed this precipitate with one-fourth of its weight of quicksilver, and sublimated it, supposing that if it contained an excess of oxymuriate of mercury, it would be capable of taking up a fresh quantity of mercury. But far from this, the quicksilver had lost none of its weight in the experiment. 4°. It is known that the caustic alkalies and lime-water give a black colour to the submuriate of mercury, which happened to that prepared as above.

The author adds, “ I cannot think but that this process will be more advantageous than the one hitherto followed. 1°. Because this submuriate of mercury may be prepared with less trouble, and less expence, and without employing the oxymuriate of mercury. 2°. As there is never any reason to fear that it contains any thing corrosive, provided it has been sufficientlyedulcorated, it may always be given with perfect safety; and the operator is not exposed to the dangerous powder which rises during the trituration of corrosive sublimate in the old way.

3°. This submuriate of mercury is always a finer powder than the common sweet mercury, which can never be brought to equal it, though pounded ever so long."

The "*antivenereal drops*," very famous at Amsterdam, were analysed by Scheele. He found they were composed of muriatic acid, saturated with iron, and mixed with a very small quantity of mercury.

The submuriate of mercury by precipitation, mixed with hog's-lard or white cerate, or else with honey, is useful in many cases as an ointment, instead of the grey mercurial ointment. (*Unguentum et mel ex submuriate hydrargyri.*) It serves also in powder, with saliva, for frictions. Mixed with lime-water, it forms the *Lotio syphilitica nigra*. (Ph. Syph.)

2°. The ammoniacal muriate of mercury, (*Murias hydrargyri ammoniacalis*), or the white precipitate, is, according to Fourcroy, a real salt, composed of oxyde of mercury, muriatic acid, and ammonia. It is commonly prepared by dissolving a pound of muriate of ammonia and a pound of muriate of mercury in distilled water, and adding to the solution a pound of subcarbonate of potash. The precipitated powder is washed several times. The ammonia is always precipitated in this triple salt, with the two others.

The best way of preparing this salt is to dissolve, by a gentle heat, one ounce of mercury in nine or ten drachms of nitric acid, then to dilute

the solution with a pound of distilled water, and add to it a solution of two drachms of muriate of ammonia in four ounces of distilled water, to which is added immediately after a solution of potash in water, in order to obtain a proper quantity of precipitate. Care must be had not to put too much of the last solution, as the precipitate would take a yellow colour. This white powder thus precipitated should be washed in distilled water, and serves principally for ointment.

3°. *The oxymuriate of mercury, (Oxymurias hydrargyri,)* or corrosive sublimate. This salt, as found in the shops, prepared by sublimation, is liable to all the objections which I mentioned in the submuriate of mercury prepared by sublimation. Its quality is hardly ever the same, though prepared in the same manner; and it is moreover often adulterated with the oxyde of white arsenic. The pure oxymuriate of mercury obtained by sublimation has a radiated texture; and mixed with lime-water it produces an orange colour, while that which is adulterated with arsenic has a granulated texture, and gives a black colour to lime-water. It is better and more easily prepared by crystallisation, and always obtained of the same quality. This process was invented by *Berthollet*, and is performed as follows:

Dissolve mercury in nitric acid, dilute the solution with a quantity of distilled water, and then add oxymuriatic acid till the smell of the

latter is clearly perceivable; evaporate gently, and keep the fine white crystals for use.

The oxymuriate of mercury, mixed in the quantity of thirty grains with a pound of fresh lime-water, produces a mixture of an orange colour, long since known by the name of phagedenic water. (*Lotio syphilitica lutea*, or *lotio phagedænica*. Ph. Syph.)

The oxymuriate of mercury is also employed in powder for baths (see the next chapter); or by dissolving it, either in distilled water, or alcohol, for internal use.

The *Sirop de Cuisinier* is composed, as already observed, of a strong decoction of sarsaparilla, to which a little senna is added towards the end of the boiling, and afterwards one or two grains of oxymuriate of mercury to each pound of the decoction, which is then sweetened with sugar. The dose is four table-spoonsful a-day.

4°. *The nitrate of mercury (nitræs hydrargyri)* is a salt composed of nitric acid and mercury, and crystallised by evaporation. The saturated solution of mercury in nitric acid is called the supernitrate of mercury, or nitric solution of mercury. (*Supernitræs hydrargyri liquidus*, seu *acidum nitricum hydrargyrum*).

If this nitric solution of mercury be evaporated by boiling in a large glass vessel till there remains a dry mass, and it be then constantly stirred with a glass tube while the heat is increased till it becomes red, it is called red nitrate of mercury. (*Nitræs hydrargyri ruber*, commonly

called *mercurius corrosivus ruber*, or *mercurius præcipitatus ruber*.)

When this red powder is exposed to a continued heat, always stirring it, all the nitric acid exhales by degrees, and there remains a red powder, which is no longer a metallic salt, but a simple oxyde, in no respect different from the red oxyde of mercury mentioned above. The more the colour approaches that of saffron, or the ruby, or a bright red, the more it is disengaged from the acid; the more it is of a yellowish-orange, the more is it mixed with the acid. All the acid can be driven off only by a great heat. For this purpose it must be exposed in a retort or matrass, to a fire managed very gently till the moment when the red vapours cease, and the revivification commences. (*Oxydum hydrargyri rubrum*. Ph. Syph.)

The powder called in the old Edinburgh Pharmacopœia *Pulvis mercurii cinereus*, is made in the following manner, directed by Dr. Black: Take mercury and nitrous acid diluted with water, of each an equal weight. When the mercury is dissolved, dilute the solution with pure water, and pour as much ammonia on it as is necessary to precipitate the mercury in the form of a grey powder; wash this powder in pure water, and dry it.

This powder is not a pure mercurial oxyde as has been supposed, but a real triple salt, like all the other precipitates of mercury done with ammonia. This salt is composed of nitric acid

and ammonia, united and precipitated together with the grey oxyde of mercury. The reason why it takes this colour is, that a part of the oxygen which was combined with the mercury is disengaged by the addition of the alkali: it is an oxyde of mercury united with the nitrate of ammonia. (*Oxydum hydrargyri griseum cum nitrate ammoniacæ.*) The salt which is obtained by evaporating the liquor that remains after this precipitation is also a triple salt; but of a white colour. It is the ammoniacal nitrate of mercury. (*Nitras hydrargyri ammoniacalis.*)

The White Drops of the late famous Dr. Ward ought in the opinion of some chemists to be placed here, being composed of mercury dissolved in nitric acid, combined with ammonia, or, according to others with the muriate of ammonia. To obtain this preparation in the form of a salt, take nitric acid diluted with an equal quantity of distilled water; add by degrees sixteen ounces of liquid carbonate of ammonia; and after the fermentation has ceased, throw into it eight ounces of purified mercury, or as much as it will dissolve in a sand bath. The solution is then evaporated to obtain the crystallised salt, which is kept in a flask well corked.

The unguentum è nitrate hydrargyri, Ph. Lond. et Edinb. is a very good remedy: there are different ways of preparing it, but that which I have given in the *Pharmacopœia Syphilitica* seems to deserve the preference. An ounce of mercury is dissolved in two ounces of nitric acid; to

this solution is added, while warm, six ounces of hog's-lard, mixed with four ounces of olive oil; and if the ointment be wished more liquid, four ounces of fine fish oil are used instead of olive oil, stirring the mass well with a spatula, till it is cold.

5°. *The sulphate of mercury* (*sulphas hydrargyri*) is prepared by digesting twenty-four parts of the yellow subsulphate of mercury, with thirty-six parts of sulphuric acid, for four-and-twenty hours. This salt thus prepared is the basis of the famous liquor of *Mittier* of Montpellier. Take sixty grains of sulphate of mercury; add, while the mass is triturated in a glass mortar, two drops of water every minute, till the salt is completely dissolved; to this as much distilled water is added as will fill a quart bottle.

The yellow subsulphate of mercury, (*Subsulphas hydrargyri luteus*), or Turbith mineral, (*Turpe-thum minerale*, or *Mercurius emeticus flavus*), is made by dissolving mercury in an equal weight of sulphuric acid, which is made to boil. Hot distilled water is then poured on this white solution, from which there is a yellow precipitate, which is washed several times with pure water.

6°. *The tartrate of mercury*, (*Tartras hydrargyri*) is a combination of mercury with the tartaric acid. This acid has hardly any action on quicksilver, but unites easily with the mercurial oxydes. The tartrate of mercury is prepared,

1°. By precipitating mercury from its nitric solution by tartaric acid: this is the yellow tar-

trate of mercury, (*Tartras hydrargyri præcipitatus flavus*, or *Pulvis Constantinus*.) 2°. By precipitating mercury from its muriatic solution by the supertartrate of potash: this is the white tartrate of mercury, (*Tartras hydrargyri præcipitatus albus*, or *Pulvis argenteus*.) 3°. By precipitating mercury from its nitric solution by the supertartrate of potash: this is the “*Terre feuilletée mercurielle*,” of *Pressavin*, who introduced it into practice by that name. The supertartrate of potash, (*Supertartras potassæ*), commonly called cream of tartar, or purified tartar, which is employed in this preparation, is not, as was long supposed, a pure acid, but a salt composed of potash with an excess of acid, called by modern chemists tartaric acid. The method given by the author for preparing his “*Terre feuilletée mercurielle*,” consists in precipitating the mercury from its solution in nitric acid by potash, then boiling the precipitate with a solution of supertartrate of potash, in water, till the oxyde of mercury becomes perfectly white. The tartaric acid has a very strong action on the oxyde of mercury, especially when the mercury has been dissolved in nitric acid. The tartrate of mercury thus prepared is a very acrid preparation, which acts with great energy on the human body, and should therefore be employed with prudence.

7°. *The acetate of mercury* (*Acetas hydrargyri*) was first introduced into practice by *Keyser*, at Paris. He began by reducing the mercury to a

grey oxyde by long trituration ; he then united it with vinegar, and made it into pills with honey. This mercurial salt is now prepared much more quickly and easily, by adding to a saturated solution of mercury in nitric acid, diluted with an equal quantity of distilled water, a solution of acetate of potash. The potash unites with the nitric acid, and the acetic acid, combining with the mercury, is precipitated in the form of fine pearl powder. Another way of making the acetate of mercury quickly, is to boil the red oxyde of mercury to dryness with the acetic acid.

8°. *The phosphate of mercury* (*Phosphas hydrargyri*,) is little used, principally because the combination is very difficult, and many chemists even doubt the possibility of it. — But it may be obtained in this way :

Take twenty-four grains of mercury, and dissolve them in nitric acid. Then dilute thirty grains of phosphoric acid in some ounces of distilled water. Mix these two liquids together in a glass vessel, and expose them to a pretty strong heat to drive off all the nitric acid. Then dissolve the opaque mass which remains in the distilled water, in which you have first dissolved seven or eight grains of phosphoric acid.

The phosphate of mercury having of late been very extensively used in medicine in Germany, different methods have been tried of preparing it ; that of *Trommsdorff* is the best. He precipitates the nitrate of mercury by the

phosphate of soda. The precipitate obtained is of the greatest purity. It is washed in warm water, and dried without the access of light.

9°. *The prussiate of mercury*, (*Proto-hydrocyanate* of mercury. Thénard.) Attempts have been made of late to combine mercury with the prussic acid; but I have not procured exact information on the qualities and virtues of this preparation. It has been directed to dissolve twelve grains of this salt in a pound of distilled water, adding more or less syrup, of which three table spoonsful are given three times a-day, but to delicate persons only one a-day.

10°. *Red sulphuret of mercury*, (*Sulphuretum hydrargyri rubrum*,) or cinnabar, is seldom prepared by the apothecaries, but bought in the great manufactories. It is employed with success in mercurial fumigations. The mercurial sulphuret of antimony, (*Sulphuretum hydrargyri stibiatum*, or *Æthiops antimonialis*, Huxhami,) is composed of four parts of mercury, two of sulphur, and three of the black or native sulphuret of antimony, pounded and mixed together: according to others, it is prepared by triturating two parts of the black sulphuret of antimony, or crude antimony, with one part of mercury: and the Swedish Pharmacopœia prescribes for the same preparation, to triturate well two parts of the red hydro-sulphuret of antimony, vulgo Kermes' mineral, with one part of quicksilver.

CHAPTER XXI.

PRACTICAL REMARKS ON THE EFFECTS OF THE ADMINISTRATION OF THE PRINCIPAL MERCURIAL PREPARATIONS IN THE TREATMENT OF SYPHILITIC COMPLAINTS.

I. — OF MERCURY IN ITS METALLIC FORM.

QUICKSILVER seems to have no action on the human body, either in health or sickness. It is employed, when purified, in the preparation of the different mercurial oxydes and salts. Nevertheless, it exhales during distillation, in chemical laboratories, a pernicious gas, which suffocates those who do not guard against it.

It also produces serious and pernicious symptoms in gilders on metal, as I have shown in chap. xiii. of this volume. It would seem also, from some facts, that mercury, in its metallic form, boiled with water, communicates some portion of its virtues, or some principle capable of acting on the human body. A practitioner informed me, that he had cured the syphilitic disease by a simple decoction of mercury in water, giving every day a bottle of it made regularly each day with fresh mercury, but I doubt the fact. I have seen this decoction also

given to children in Germany, who had worms, as a domestic medicine; but I never had occasion to ascertain its efficacy precisely. A fact which a surgeon of my acquaintance in London communicated to me deserves attention. A dog was radically cured of a most obstinate itch, for which a number of remedies had been tried in vain, by the use of this decoction for his ordinary drink. There are authors who maintain that mercury, after having been thus boiled, loses its anti-syphilitic quality; but all these facts require to be verified and confirmed.

II. — OF THE MERCURIAL OXYDES.

It is important for the practitioner to observe, in general, that oxydized mercury acts with more or less energy on the body, according to the degree of its oxydation. Consequently, we see, according to this scale, that the grey-black oxyde of mercury is the mildest; then the brown oxyde, the red, and finally the yellow oxyde, which is the most acrid of all, and exerts the strongest action on the human body.

It must also be observed, that the grey-black oxyde, exposed to the rays of the sun, is reduced to the metallic form, and therefore the different preparations made with it should be kept in a place quite dark, or in China vases. This is not to be feared for the other mercurial

oxydes, which are never reduced by the contact of the rays of the sun.

A. — The most useful preparations made with the *grey-black oxyde of mercury*, (*Oxydum hydrargyri griseo-nigrum*,) are,

- 1°. The gummy oxyde of mercury.
- 2°. The resinous oxyde of mercury.
- 3°. The saccharine, or honeyed oxyde.
- 4°. The oxyde of mercury combined with liquorice.
- 5°. The oxyde of mercury with hog's-lard, or the grey mercurial ointment.

1°. *The gummy oxyde of mercury* (*Hydrargyrum gummosum*). This preparation, in which mercury, reduced into a grey-black oxyde, is combined with a gum, or a vegetable mucilage, was invented and introduced into practice about fifty years since by professor *Plenck*. He prescribed it at first diluted with water in the form of a mixture; but this being found inconvenient, because the mercury was not sufficiently suspended, he proposed some time after to reduce this medicine into pills. He directs that two drachms of well purified mercury should be triturated with three drachms of gum arabic in powder, and a sufficient quantity of conserve of blackberries, in a marble mortar, till the mercury has disappeared; when the trituration has been continued an hour longer, the mass must be mixed with half an ounce of crumb of white bread, to form it into pills of three grains each, of

which the patient may take six night and morning. This form is less inconvenient, but even this is subject to objection, for these pills, like all others made with crumb of bread, become so dry when kept any length of time, that they frequently pass the stomach undissolved, and are found afterwards in the stools in the same globular form they had when swallowed. This inconvenience may be avoided, by using starch instead of crumb of bread, as I have directed in the PHARM. SYPH. (*Pilulæ ex hydrargyro gummoso*), which may be considered a useful acquisition to the Pharmacopœia.

2°. THE RESINOUS OXYDE OF MERCURY obtained by the trituration of mercury with the liquid resins or balsams, as of turpentine, balsam of Peru, &c., is a useful kind of remedy in many cases. The union of the mercury with the turpentine is facilitated by adding a few drops of oil of turpentine, in forming the pills. (See PH. SYPH.) This composition, however, is apt to excite griping pains, and relaxation of the bowels; an effect partly dependent on the bad quality of the turpentine; to avoid which, it is expedient to make choice of the best kind, or that which flows from the larch (*Pinus larix*), hence termed *terebinthina larigna*, or Venice turpentine. Instead of this, or where it is not to be obtained, we may use the liquid resin of the *Pinus balsamea*, known in commerce as the Canadian balsam; or we may substitute the balsam of Tolu, or of Peru, mixed with some

vegetable powder, and of this composition five or six grains, in a pill, may be given every night.

3°. THE SACCHARINE, OR HONEYED OXYDE OF MERCURY, (*Hydrargyrum saccharatum*; *mel hydrargyri*,) mercury triturated with an equal weight of honey, or with twice its weight of sugar-candy, forms what, in general, is an excellent medicine. The dose, internally, is eight or ten grains a day, in powders, pills, or troches. The honeyed oxyde of mercury is peculiarly appropriate in all syphilitic ulcerations.

4°. THE LIQUORICED OXYDE OF MERCURY, in which the mercury, rubbed down with the inspissated juice of liquorice (*glycyrrhiza glabra*), is reduced to a grey-black oxyde, forms one of the mildest of the mercurial preparations. It may be divided into pills, and given to the extent of ten grains, once or twice in the day.

5°. For what regards mercury triturated with hog's-lard, or GREY MERCURIAL OINTMENT, see chap. vii. of *mercurial frictions*.

B. — THE RED OXYDE OF MERCURY (*oxydum hydrargyri rubrum*) prepared either by itself, or with the nitric acid, is an acrid remedy, which I have constantly found apt to produce griping pains in the bowels; I therefore now rarely direct it internally. It is, however, very practicable to avoid this inconvenience, by giving half a grain of the oxyde, with one of opium, in a pill to be repeated every night. It may also be considered a useful escharotic powder, applied locally to syphilitic ulcers.

C.—THE WHITE OXYDE OF MERCURY, as applied to practice, is never a pure oxyde, it is in fact a triple salt of mercury. This preparation is principally used externally, in the form of ointment, or of lotion. For the first of these purposes, one part of the salt may be mingled with six or eight of hog's-lard. See *Ammoniacal nitrate of mercury*.

THE YELLOW OXYDE OF MERCURY mixed with a portion of sulphuric acid, see *yellow subsulphate of mercury*.

III. — OF THE MERCURIAL SALTS.

1°. THE ACETATE OF MERCURY, (*Acetas hydrargyri*,) or oxyde of mercury with a portion of the acetic acid. This preparation, under the name of *Keyser's pills*, or *troches*, has made a great noise in France, during the last fifty or sixty years. It was declared to be the best and surest of all mercurial preparations for removing the most obstinate and inveterate symptoms of syphilis, without producing salivation, or exciting any of those unpleasant consequences often attending the use of other preparations of mercury. Time and experience however have shown, that this remedy sometimes fails in removing the disease, and that it often is followed by the same ill effects produced by mercury under other forms. The fact is, whenever mercury is exhibited as a saline combination,

it operates sharply, excites a re-action more or less violent in the system, and will salivate, if not managed with prudence, or if the patient neglects the rules prescribed. On the other hand, it is impossible, in the great number to whom this medicine has been given, that some should not be found, who have not experienced the good effects of it to be equal to its pretensions. Every one who has seen any thing of practice in syphilis, must have met with cases in which one preparation has done little or nothing, while another has operated well, beyond all expectation.

We are not yet enabled to explain these differences, nor are we sufficiently acquainted with the human constitution to regulate or foresee them *à priori*. Keyser's pills are a saline preparation, in which the mercury, after being reduced to a grey oxyde by long trituration, is eventually dissolved by the agency of vinegar. They consequently, in some instances, produce the best possible effects, and perfectly cure the syphilitic disease, as well as any other of the preparations of mercury; while on some occasions they are less useful, or even pernicious. This circumstance, and the difficulty of preparing the salt as Keyser directed it, probably explain why this remedy has long been neglected. The latter objection, however, may be obviated by making the preparation in the manner directed in the preceding chapter.

2°. THE TARTRATE OF MERCURY, (*tartras hydrar-*

gyri,) or the oxyde of mercury combined with the tartaric acid, or in which the oxyde unites itself to the supertartrate of potash, known as the foliated oxyde or earth of mercury, are both of them very active preparations, without possessing any advantage beyond the other mercurial salts.

3°. THE NITRATE OF MERCURY, (*nitras hydrargyri*,) or mercury combined with the nitric acid, is employed in different forms, internally as well as externally. Internally, it is usually given from half a grain to a grain, dissolved in two pints of the decoction either of guaiacum or sarsaparilla. The liquid supernitrate of mercury, or solution of mercury in the nitric acid, has been usefully applied externally to phagedenic ulcerations. The same solution diluted with water forms a good lotion for syphilitic ulcers.

The ointment, with the nitrate of mercury, (*unguentum ex nitrate hydrargyri*. PH. SYPH.) I have found one of the most efficacious remedies I know of, for syphilitic and herpetic affections of the skin. It may be sometimes an advantage, to moderate its power by adding a double portion of hog's-lard. See PH. SYPH.

That which relates to the red oxyde prepared with the nitric acid, I have already considered, under the head of mercurial oxydes.

THE GREY AMMONIACAL NITRATE OF MERCURY (*nitras hydrargyri ammoniacalis, seu pulvis mercurii cinereus*) is a triple salt, less acrid than the

other salts of mercury; it is nevertheless, if given beyond a grain in a dose, as I have proved upon myself, apt to produce griping and diarrhœa.

The mercurial syrup of Billet, commonly but improperly called *vegetable syrup*, a composition boasted of, and long made a secret, is a bad preparation and never to be trusted; for it is made very differently by different apothecaries, and too often the mercury introduced is precipitated by the addition either of alcohol, or etherial spirit. See chap. xii. where I have spoken of this remedy more in detail.

Ward's white drops, have had much reputation in England, are active in their operation, and exceedingly useful, in certain cases. One ounce of this salt is dissolved, over a sand bath, in three ounces of distilled water. Of the solution from one to three drops may be given in the day, in decoction of sarsaparilla, or barley water.

4°. THE YELLOW SUBSULPHATE OF MERCURY, (*Subsulfas hydrargyri luteus*,) also called turpeth mineral, (*turpethum minerale, seu mercurius emeticus flavus*,) is a very acrid substance, little employed at present. It is however useful in some affections of the skin, and may be given to the extent of a quarter of a grain, two or three times a day. I have seen some cases in which, given daily in very small doses, it has removed completely syphilitic diseases of the skin, as well as other affections of a worse kind. I

have spoken, in the preceding chapter, of a peculiar mode of preparing this salt. Sixty grains may be dissolved in two pints of distilled water, of which the patient may take a table-spoonful in a glass of water daily, for thirty or forty days. Sometimes it is given as an emetic or as a sternutatory, in a dose of one, two, or three grains. It may be also perhaps useful, given internally in syphilitic ulcers.

5°. THE SUBMURIATE OF MERCURY, (*Submurias hydrargyri*,) commonly called sweet mercury, (*calomel*, *panacea mercurialis aquila alba*, *mercurius dulcis*, &c.) is mercury combined with a portion of muriatic acid. This preparation, above all prepared by sublimation, is an acrid salt, which operates actively upon the body, but particularly upon the intestines, and is very apt to excite griping and looseness. It is remarkable, that infants are in general little affected by this medicine. I never myself direct, either internally or externally, the sublimed submuriate, but always that prepared by precipitation, in the way recommended by *Scheele*, mentioned in the preceding chapter. It is an excellent remedy for the cure of syphilitic ulcers of the mouth and throat; and I employ it in frictions to the gums and other parts within the mouth. I also apply it to external syphilitic ulcers in both sexes, repeating it once or twice a day till the cure is completed; or it may be sometimes directed, mixed with honey, or rubbed down with any simple ointment.

It is many years since M. CLARE published a new mode of employing this remedy, for curing syphilis. His method consisted in rubbing in two or three grains of the submuriate of mercury upon the inside of the mouth, upon the jaws, lips, and gums, morning and evening, carefully washing out the mouth with warm water before each friction. It was said, that this mode cured in a short time, with little inconvenience, every kind of venereal complaint; and although this remedy sometimes affects the salivary glands, he believed it to be, in general, the most expeditious method of curing the pox. He continued the frictions daily for some time after the symptoms have disappeared.

I have sometimes found this method of treatment extremely useful, especially in syphilitic ulcers about the throat, but it has its inconveniences. Mercury, so administered, increases the secretion of saliva, which I always caution the patient against swallowing, as it will often excite griping and disordered bowels; although, if on the other hand it is spit out, the greater part of the mercury is lost, and this retards the cure, or renders it uncertain. These inconveniences, however, are amply compensated by the advantage of its prompt action upon ulcers in the throat, which generally by their rapid progress render prompt assistance indispensable. The submuriate by precipitation is less objectionable, when prepared as above directed. But I do not mean to recommend in any case

this method as competent to the complete cure of syphilis.

The submuriate of mercury is also employed with success in injections and lotions, mixed with any mucilaginous substance, for suspending it in water only, or in lime-water, to which it gives a black colour. (*Lotio syphilitica nigra*. PH. SYPH.) Its use is very conducive to cleanliness, and particularly applicable to certain chronic excoriations about the glans and prepuce in aged persons, affections that are often troublesome, and which sometimes prove obstinate.

It is right I should mention here a medicine, that many physicians, and myself also, have employed, for some time back, in the treatment of syphilis, I mean the *powder or pills of PLUMMER*, which are not, properly speaking, a preparation of mercury, but a mixture of submuriate of mercury and yellow hydro-sulphuret of antimony. I have already observed, that the submuriate, when prepared by sublimation, is a variable remedy as made at different places, and consequently is not a medicine, the operation of which can be accurately calculated upon. Besides this, it is here mixed with sulphur of antimony. For this reason I do not advise the cure of syphilis to be entrusted to *Plummer's pills*. Plummer, most likely in using this composition, considered especially the wishes and convenience of those to whom he recommended it, in preventing salivation by means of the sulphur, and in directing the mercury towards the surface;

and this is in fact what appears especially required in syphilitic affections of the skin. But although this remedy may be very effectual in cutaneous affections, I must declare, that according to my experience, and that of some other impartial writers, it is not prudent to trust to them in the cure of confirmed syphilis. I have often had occasion to observe, that these pills, when they have been taken for a considerable length of time, have only made the symptoms disappear for a season without producing a radical cure; which with me has been a motive sufficient for considering them uncertain, and for thinking, that no practitioner ought to confide in them for the cure of syphilis, when he has other means more sure, equally within his reach.

6°. THE OXYMURIATE OF MERCURY, (*Oxymurias hydrargyri*,) or mercury united with the oxymuriatic acid, commonly called *corrosive sublimate*, or oxygenated muriate of mercury, is the most active and most acrid of all the known preparations of mercury.

It was the celebrated VAN SWIETEN that first introduced the use of this salt dissolved in alcohol. This remedy, for some years, excited the attention of the best physicians in Europe. It was extolled by some, as a most excellent remedy, capable of eradicating the most inveterate symptoms of syphilis; and was especially recommended in those affections of the skin, and such as were connected with the bones.

It was abused by others, who declared it often produced the worst and most dangerous effects, without curing the disease. The report of each party seems to have been equally far from the truth. There are many cases, in which this remedy has perfectly cured syphilitic complaints the most obstinate and inveterate; while I have seen many others, in which it has certainly produced the most serious symptoms, pain in the stomach, griping, looseness, pain in the head, fever, anxiety, oppression at the chest, and spitting of blood, without curing the syphilis.

But that which I have most frequently observed, and to which I would principally desire the attention of practitioners, is, that this remedy relieves, or makes to disappear, commonly very soon, the worst symptoms of the disease, without radically curing it, although it may have been exhibited a considerable time. I am at length induced to think, that the high repute in which the corrosive sublimate was at first held, was owing to its low price, and to its peculiar power of softening or relieving the most formidable symptoms, even though it did not cure.

It is at all events clear, there are some constitutions that cannot bear this medicine, without exposure to danger; and it appears probable, from the observations I have made, that the bad effects attributed to the remedy, have been frequently owing to its having been ill prepared, or imprudently given in delicate and irritable

constitutions, which never answers, or lastly, exhibited in too large doses.

Now, although I prefer in general the mild preparations of mercury, I conceive cases now and then occur in practice, where the symptoms are such as to require remedies of greater power; where the object is not merely to relieve soon, but if possible remove instantaneously, the operation of the disease. In such cases, it is occasionally very proper to have recourse to the oxymuriate of mercury, although less frequently than is commonly believed; but before this is determined on, it is necessary in every case to consider well the constitution of the patient. If he is of a strong constitution with sound lungs, this salt may be tried in safety, taking every precaution as to its mode of preparation, the manner, and quantity of it when administered. I never advise its being given when the patient is weak or irritable, when the chest is not strong, or where hæmoptysis, or other complaint of the lungs, has previously existed; for I have always observed, that such patients, particularly females, cannot bear this remedy. It produces, in fact, all the effects of a poison; and I have seen many die of spitting of blood, of consumption, &c., after a single course, although much more frequently after repeated courses of treatment by the corrosive sublimate. I have also seen persons who seemed to have a strong constitution suffer greatly from this preparation, and have found them become dangerously ill from it.

For these reasons, it requires judgment and circumspection to determine on the use of this remedy. It is never right to begin with more than a quarter of a grain at first, or to exceed in all half a grain in the day, dissolved in milk, barley-water, or decoction of sarsaparilla. When given in this manner, and in a favourable season, there is less reason to fear its producing ill effects, or that its use should prove dangerous. It is also necessary to recollect in employing the corrosive sublimate, it is impossible to be too attentive to the choice of the preparation, for without the greatest care, and the greatest exactitude, in preparing this active substance in the common way by sublimation, it is scarcely ever possible to obtain it twice of the same strength, although the same mode may be constantly followed. This method, in fact, ought to be laid aside in our laboratories, it should give place to a procedure more sure and more rational, such as I have explained in the preceding chapter.

It is necessary in all cases to lay aside its use, from the moment we perceive any serious or dangerous symptoms. In general, I must say, I consider the corrosive sublimate, in the hands either of young men or routine practitioners, as a true poison, by the assistance of which great numbers of patients are made to drag on a miserable life, or else perish in the flower of their age.

The oxymuriate of mercury may be adminis-

tered dissolved in water, or alcohol, or in pills, but in the latter case they must not be made with crumb of bread, as has sometimes been foolishly directed; as they become hard, and pass the bowels unchanged. It is better to make them in the manner prescribed for the mercurial pills with gum. See PH. SYPH.

As to what relates to the use of the oxymuriate of mercury in frictions, recommended in the course of the last century by Dr. *Cyrillo* of Naples, I shall only observe, that out of ten or twelve patients, to whom it was so directed at Naples, the frictions being applied to the soles of the feet, eight died within a year afterward.

Upon the use of this salt in baths, see chap. vii.

The oxymuriate of mercury dissolved in water, has also been employed externally as a lotion for syphilitic affections of the skin, or in injections for gonorrhœa. See PH. SYPH.

In some syphilitic ulcers, this salt has been found useful, dissolved in lime-water, a mixture long known under the name of *phagedenic water*. (See PH. SYPH. *Lotio syphilitica lutea*.)

The oxymuriate of mercury, mixed with the extract of hemlock, or of aconite, (*aconitum napellus*, or *aconitum cammarum*,) is sometimes an excellent remedy in those syphilitic pains resembling rheumatism, as also in the puffy tumefactions that appear upon the bones.

I shall here add one observation only, it is

that the saline and acrid preparations of mercury, and more particularly the corrosive sublimate, produce and frequently leave behind them, wandering and flying pains in various parts, with so impaired a digestion, and so much irritability of stomach, that the patient is rendered incapable, for the rest of his life, of bearing the internal use of any preparation of mercury whatever, without experiencing violent rheumatic pains, nervous fever, nausea, pain in the stomach, colic or tenesmus. Under these circumstances, mercurial frictions are the only means to which we can have recourse, whenever the symptoms of syphilis make their appearance.

PHARMACOPŒIA

SYPHILITICA.

AUCTORE F. SWEDIAUR, M. D.

ADVERTISEMENT.

THIS little pharmacopœia contains the medicines principally employed or recommended in the preceding treatise, for the cure of syphilitic disorders.

I may here observe, that the formulæ are not intended for the servile imitation of the junior branches of the profession, in all cases. Medicines, unless administered empirically, require to be perpetually varied, according to the age and constitution of the patient, the sex, period of the disease, &c. I recommend this observation to the serious attention of the young practitioner. It is a truth now well known, that it is not so much the being acquainted with the powers of medicines, as the faculty of discrimination and judgment with which they are applied, that characterise the good physician. It will therefore not be right to treat in the same manner, nor to give medicine in the same dose to a Russian, an Englishman, a Frenchman, and a Spaniard, although they were each

attacked with the same disease ; as it is necessary to graduate the power and quantity of the medicine to the temperament, sensibility, and irritability of the patient, if we would succeed in curing the disease, the effects of which will vary with the climate and seasons. In the same way, this pharmacopœia, though it contains general rules, requires those modifications that an enlightened physician will not fail to understand. It is written in Latin, for I am well persuaded that nothing so much encourages or assists quackery as prescriptions written in any vulgar tongue, especially in a work of this nature ; which makes ignorance believe, that in possessing a prescription for the cure of a certain disease, it possesses the science and knowledge necessary for treating all cases, and every modification of them ; this is degrading to the art, while it involves errors most serious to the patient, who sometimes imagines, that all the knowledge of the physician consists in his possessing a certain number of remedies or formulæ adapted to each complaint.

I have been careful, in the preceding work, to avoid all ambiguity in terms ; I have done the same thing here also. The use of vague expressions is the cause of more errors than is generally believed. It behoves the physician to be as clear and as precise in language as the mathematician. It is from the want of this precision in the use of words, that many diseases, known to the ancients, are unknown to us, and

that a multitude of remedies, then considered very efficacious, are now entirely lost sight of.

For this reason, I have throughout adopted for the plants those names given by *Linnaeus*, giving the generic name without alteration; and for the chemical preparations, the clear and precise nomenclature of modern French chemistry. The well-educated physician should not be unacquainted either with the elements of botany, or with those of modern chemistry.

PHARMACOPŒIA

SYPHILITICA.

VEGETABILIA.

ACACIA VERA. — Gummi.

Offic. *Gummi arabicum*; Gallis, *Gomme arabique*;
Anglis, *Gum arabic*; Germanis, *Arabischer gummi*.

ACONITUM CAMMARUM. } Herba, seu folia recentia;
ACONITUM NAPELLUS. } extractum.

Off. *Aconitum*; G. *Chaperon de Moine*; A. *Wolfsbane*; Ge. *Blauer Sturmhut*; Hispanis, *Aconito*.

AGAVE AMERICANA. — Folia.

ARCTIUM LAPPA (Radix).

Off. *Bardana*; G. *Bardane*; A. *Burdockroot*; Ge
Klettenwurzel; H. *Lampaza*.

ARUNDO PHRAGMITES.

G. *Roseau des marais ou des balais*.

ASTRAGALUS EXSCAPUS (Radix).

ATROPA MANDRAGORA (Radix).

Off. *Mandragora*; G. *Mandragore*; A. *Mandrake*;
Ge. *Alraun*.

BUXUS SEMPERVIRENS (Lignum).

CANNABIS SATIVA (Semina).

G. *Semences du chanvre*; A. *Hempseed*; Ge. *Hanfsaamen*; H. *Laxor*.

CEANOTUS AMERICANUS (Cortex interior; Radix).

A. *New Jersey Tea*.

CINCHONA OFFICINALIS (Cortex).

Off. *Cortex peruvianus*; G. *Kinkina* ou *Quinquina*;
A. *Bark*; *Peruvian Bark*; Ge. *Fiebellrinde*; H.
Quina.

CONIUM MACULATUM (Herba, Folia: extractum).

Off. *Cicuta*; G. *Ciguë*; A. *Hemlock*; Ge. *Schierling*;
H. *Conio Manchado*.

COPAIFERA OFFICINALIS (Resina liquida incisione arboris obtenta).

Off. *Balsamum Copaivæ*, seu *de Copaiba*; G. *Baume de Copahu*; A. *Balsam of Cupaiva*; Ge. *Kopaiva-Balsam*.

DAPHNE LAUREOLA }
———— MEZEREUM } Radix; Cortex radicis.

Off. *Mezereum*; G. *Garou*; A. *Mezereon*; Ge. *Seidelbast*.

EUPHORBIA PARVIFLORA (Herba).

A. *Doves-Weed*.

GEUM RIVALE (Radix).

GLYCYRRHIZA GLABRA }
———— ECCHINATA } Radix: extractum.

Off. *Liquiritia*; G. *Réglisse*; A. *Liquorice*; Ge. *Süssholz*; H. *Regaliz*.

GRATIOLA OFFICINALIS (Herba; Radix: extractum).

Off. *Gratiola*; G. *Gratiole*; A. *Hedge-hyssop*; Ge. *Erdgalle*; *wilder aurin*.

GUAJACUM OFFICINALE (Lignum: Cortex ligni; Gummi-resina, s. succus Gummi-resinosus ex arbore exsudans, concretus).

Off. *Lignum Guajaci*, *Lignum sanctum*, *Gummi Guajacum*, *Resina Guajaci*; G. *Gaïac*, *Gomme Gaïac*, A. *Guajac*, *Gum Guajac*; Ge. *Guajakholz*, *Franzosenholz*, *Guajakgumi*; H. *Guajaco officinal*.

HYOSCIAMUS NIGER (Folia: extractum).

G. *Jusquiamé*; A. *Henbane*; G. *Bilsenkraut*.

JUGLANS REGIA (Drupa fructus: extractum; Folia).

Off. *Cortex viridis nucum Juglandium*; G. *Brou de Noix*; A. *Green Walnuts*; Ge. *Grüne Walnusse*.

JUNIPERUS SABINA (Folia).

Off. *Sabina*; G. *Sabine*; A. *Savin*; Ge. *Sevenbaum*.

LAURUS CAMPHORA (Oleum volatile concretum, vulgò *Camphora dictum*).

LAURUS SASSAFRAS (Lignum ; Cortex ; Radix).

Off. G. A. Ge. *Sassafras*.

LEDUM PALUSTRE (Folia cum floribus).

Off. *Rosmarinus sylvestris* ; G. *Romarin sauvage* ; A. *Bohemian Rosemary* or *Hilrose* ; Ge. *Wilder Rosmarin*.

LICHEN ISLANDICUS (*Cetraria Islandica*).

LOBELIA SYPHILITICA (Radix).

Off. *Lobelia* (Longiflora) ; G. *Cardinal bleu*.

MALVA ROTUNDIFOLIA (Herba ; Folia).

MIMOSA NILOTICA } (Voy. *Acacia*).
 ——— SENEGAL }

MYROXYLON PERUIFERUM (Balsamum).

Off. *Balsamum Peruvianum* ; G. *Baume du Pérou* ; A. *Balsam of Peru* ; Ge. *Peruvianischer Balsam*.

ONONIS SPINOSA (Radix).

PAPAVER SOMNIFERUM (Capsulæ seminales, earumque succus gummi-resinosus inspissatus, vulgò *Opium* dictus).

Off. *Capita Papaveris albi*, *Opium* ; G. *Têtes de Pavot*, *Opium* ; A. *Poppy heads* ; *Opium* ; Ge. *Mohnkoepe*, *Mohnsaft*.

PINUS BALSAMEA (Resina liquida, perforatione arboris obtenta).

Off. *Balsamum Canadense* ; G. *Baume de Canada* ; A. *Balsam of Canada* ; Ge. *Kanada Balsam*.

PINUS CANADENSIS (Cortex).

G. *Sapinette de Canada* ; A. *Hemlock-Spruce*.

PINUS LARIX (Resina liquida, vulgò *Terebinthina* dicta).

Off. *Terebinthina Veneta*, s. *Larigna* ; G. *Térébenthine de Venise* ; A. *Venetian Turpentine* ; Ge. *Terpentin*.

PRUNUS PADUS (Cortex).

QUERCUS CERRIS (Excrementia foliorum ex punctura Cynipis-Quercus orta, vulgò *Galla* dicta).

RANUNCULUS ABORTIVUS (Radix).

RICINUS COMMUNIS (Semina pro parando oleo fixo).

SAPONARIA OFFICINALIS (Folia; Herba).

Off. *Saponaria*; G. *Saponaire*; A. *Soapwort*; Ge. *Seifenkraut*.

SMILAX CHINA (Radix).

Off. *Radix Chinæ*; G. *Squine*; A. *Chinaroot*; Ge. *Chinawurzel*.

SMILAX SARSAPARILLA (Radix).

Off. A. Ge. *Sarsaparilla*; G. *Salsepareille*; H. *Zarzaparilla*.

SOLANUM DULCAMARA (Stipites: extractum).

Off. *Dulcamara*; G. *Morelle grimpante* ou *douce-amère*; A. *Bitter-sweet*; Ge. *Bittersüss*; H. *Solano dulce-amargo*.

TORMENTILLA ERECTA (Radix).

Off. *Tormentilla*; G. *Tormentille*; A. *Septfoil*; Ge. *Birkwurzel*.

PRÆPARATA CHEMICA SIMPLICIORA.

SUPERACETAS CUPRI.

Off. *Viride Æris destillatum*; G. *Sus-acétate de cuivre*; *Deuto-acétate*, THENARD (*Verdet distillé*).

SUPERACETAS HYDRARGYRI.

Off. *Trochisci Keyseri*; G. *Sus-acétate de mercure*, *Deuto-acétate de mercure*. THENARD.

ACETAS PLUMBI.

Off. *Saccharum Saturni*; G. *Acétate de plomb*.

SUBACETAS PLUMBI.

G. *Sous-acétate* ou *Proto-acétate de plomb*.

SUPERACETAS PLUMBI.

G. *Deuto acétate de plomb*.

SUPERACETAS ZINCI.

G. *Acétate de zinc* ou *Deuto-acétate de zinc*.

ACIDUM ACETICUM.

Off. *Acetum destillatum*, s. *concentratum*; G. *Acide acétique*.

ACIDUM ACETICUM DILUTUM.

Off. *Acetum*; G. *Vinaigre*; A. *Vinegar*.

ACIDUM CITRICUM.

G. *Acide citrique*.

ACIDUM CITRICUM dilutum.

Off. *Succus citri*, s. *Limoniorum*; G. *Jus de citrons*,
A. *Juice of lemons*; Ge. *Zitronensaft*.

ACIDUM MURIATICUM.

ACIDUM HYDRO-CHLORICUM. THENARD.

Off. *Acidum salis*; *Spiritus salis marini*; G. *Acide muriatique*; *Acide hydro-chlorique*. THENARD.

ACIDUM MURIATICUM SUPEROXYGENATUM.

ACIDUM CHLORICUM. THENARD.

Off. *Acidum muriaticum dephlogisticatum*; G. *Acide muriatique sur-oxigéné*; *Acide chlorique*. THENARD.

ACIDUM NITRICUM.

Off. *Spiritus nitri limpidus*; G. *Acide nitrique*.

ACIDUM SULPHURICUM.

Off. *Acidum vitriolicum*, *Oleum vitrioli*; G. *Acide sulfurique*.

ÆTHER SULPHURICUS.

Off. *Æther vitriolicus*, G. *Ether sulfurique*.

ÆTHER SULPHURICUS ALCOHOLISATUS.

Off. *Liquor anodynus mineralis* HOFFMANNI.

ALCOHOL.

Off. *Spiritus vini rectificatus*; G. *Alcool*.

ALCOHOL concentratum.

Off. *Spiritus vini rectificatissimus*; G. *Alcool*.

ALCOHOL dilutum.

Off. *Spiritus vini dilutus*; G. *Eau-de-vie*; A. *Brandy*;
Ge. *Brandwein*.

ALUMEN (Supersulfas aluminæ cum potassâ et ammoniacâ).

Off. *Alumen*; G. *Alun*, *Sur-proto-sulfate d'aluminium*,
d'ammoniaque et de deutoxis, et de potassium. THENARD;
A. *Alum*; Ge. *Alaun*.

ALUMEN FUSUM.

Off. *Alumen ustum*, s. *calcinatum*, s. *exsiccatum*; G. *Alun fondu*; A. *Burnt alum*; Ge. *Gebrennter alaun*.

AMMONIACA.

Off. *Alcali volatile causticum*; *Spiritus salis ammoniaci cum calce vivâ paratus*, s. *causticus*; G. *Ammoniaque*. *Hydrogène azoté*. THENARD. A. *Ammonia*.

ANTIMONIUM. Vid. STIBIUM.

AQUA DESTILLATA.

G. *Eau distillée*; A. *Distilled Water*; Ge. *Destillirtes Wasser*.

ARSENICUM. Vid. OXYDUM ARSENICI.

BORAX, seu SUBBORAS SODÆ.

Off. *Borax*; G. *Sous-borate de soude*.

CALX.

Off. *Calx viva*, s. *usta*; *Terra calcarea pura*. BERGM.; G. *de la chaux*; A. *Lime*, *Quicklime*; Ge. *Kalk*.

SUBCARBONAS AMMONIACÆ cristallisatus.

Off. *Alcali volatile*, *Sal cornu cervi volatile*, *Sal ammoniacum volatile*; G. *Carbonate d'ammoniaque cristallisé*.

CARBONAS AMMONIACÆ liquidus.

Off. *Spiritus salis ammoniaci*, s. *cornu cervi volatilis*, G. *Carbonate d'ammoniaque liquide*.

CARBONAS CALCIS.

G. *Terra calcarea*, *Lapis calcareus*, *Marmor album*, *Creta pura*, *Lapides cancerorum*, *Chelæ ostrearum*, etc.; G. *Carbonate de chaux*; A. *Calcareous earth*, *Limestone*, *Chalk*; Ge. *Kalkerde*, *Kreide*.

CARBONAS FERRI.

Off. *Crocus Martis aperitivus*; G. *Proto-carbonate de fer*.

SUPERCARBONAS CUPRI.

Off. *Viridi æris ærugo*; G. *Oxide de cuivre vert*, *Deuto-carbonate de cuivre*. THEN.

SUBCARBONAS PLUMBI.

G. *Sous-carbonate*, ou *proto-carbonate de plomb*.

SUBCARBONAS POTASSÆ.

Off. *Alcali vegetabile fixum*; G. *Sous-carbonate de potasse*.

SUBCARBONAS POTASSÆ cristallisatus.

Off. *Sal tartari*, *Sal absynthii*, *Alcali*, s. *Sal vegetabile fixum*; G. *Sous-carbonate cristallisé*.

SUBCARBONAS POTASSÆ liquidus.

Off. *Lixivium tartari*, s. *Oleum tartari per deliquium*; *Aqua Kali*; G. *Sous-carbonate de potasse liquide*.

CARBONAS SODÆ.

Off. *Alcali minerale*, s. *Soda*; G. *Carbonate de soude*.

FERRUM.

Off. *Mars*, *Chalybs*; G. *Fer*; A. *Iron*; Ge. *Eisen*.

GAZ ACIDUM CARBONICUM.

Off. *Aër fixus*, s. *Acidum aëreum*; G. *Gaz acide carbonique*.

GAZ ACIDUM MURIATICUM OXYGENATUM.

G. *Gaz acide muriatique oxigéné*. *Acide hydro-chlorique*. THEN.

GAZ AZOTICUM, seu NITROGENIUM.

G. *Gaz azote*, *Gaz nitrogène*.

GAZ HYDROGENIUM.

Off. *Aër inflammabilis*; G. *Gaz hydrogène*.

GAS HYDROGENIUM SULPHURATUM.

Off. *Aër hepaticus*; G. *Gaz hydrogène sulfureux*. *Acide hydro-sulfurique*. THEN.

GAZ OXYGENIUM.

Off. *Aër dephlogisticatus*, *Aër vitalis*; G. *Gaz oxigène* (*Air vital*).

HYDRARGYRUM PURIFICATUM.

Off. *Hydrargyrus*, s. *Mercurius*, s. *Argentum vivum purificatum*; G. *Mercure*, ou *Vif-argent purifié*.

HYDRO-SULPHUR AMMONIACÆ.

Off. *Hepar sulphuris volatile*; G. *Hydro-sulfure d'ammoniaque*, ou *Hydro-sulfate d'ammoniaque*.

MURIAS AMMONIACÆ.

Off. *Sal ammoniacus*; G. *Muriate d'ammoniaque* (*Sel ammoniaque*), *Hydro-chlorate d'ammoniaque*. THEN.

MURIAS AMMONIACÆ FERRATUS, seu MURIAS FERRI
AMMONIACALIS.

Off. *Flores salis ammoniaci martiales*; G. *Muriate de fer ammoniacal*.

MURIAS BARYTÆ.

G. *Muriate de baryte*.

MURIAS CALCIS.

Off. *Sal ammoniacus fixus*; G. *Muriate de chanx*.

SUBMURIAS HYDRARGYRI sublimatione paratus.

Off. *Mercurius dulcis*, s. *Calomel*; G. *Sous-muriate de mercure par sublimation*.

SUBMURIAS HYDRARGYRI præcipitatione paratus.

Off. *Mercurius dulcis* (SCHEELE); G. *Sous-muriate de mercure par précipitation*.

OXYMURIAS HYDRARGYRI.

Off. *Murias hydrargyri oxygenatus*, *Mercurius sublimatus corrosivus*; G. *Oxi-muriate de mercure*; *muriate oxigéné de mercure* (*Sublimé corrosif*), *Perchlorure de mercure*. THEN.

MURIAS HYDRARGYRI AMMONIACALIS.

Off. *Calx hydrargyri alba*, s. *Mercurius præcipitatus albus*; G. *Muriate de mercure ammoniacal*, ou *Muriate ammoniaco-mercuriel*.

OXYMURIAS POTASSÆ.

Off. *Murias hyperoxygenatus potassæ*; G. *Oxi-muriate de potasse*; *muriate sur-oxigéné de potasse*, *Deutochlorate de potassium*. TH.

MURIAS SODÆ.

Off. *Sal communis*; G. *Muriate de soude*; A. *Commonsalt*. Ge. *Küchensalz*.

OXYMURIAS STIBII SUBLIMATUS.

Off. *Murias stibii oxygenatus* SUBLIMATUS; *Butyrum antimonii*, s. *Causticum antimoniale*; G. *Oxi-muriate d'antimoine*; *muriate oxigéné d'antimoine sublimé*.

NITRAS ARGENTI FUSUS.

Off. *Lapis infernalis*, s. *Causticum lunare*, G. *Nitrate d'argent fondu* (*Pierre infernale*). *Deuto-nitrate d'argent fondu*.

NITRAS ARGENTI LIQUIDUS.

Off. *Solutio argenti in acido nitri*; G. *Nitrate d'argent liquide ou acide*.

NITRAS HYDRARGYRI LIQUIDUS.

Off. *Solutio mercurii in spiritu nitri*; G. *Nitrate de mercure liquide ou acide*.

NITRAS POTASSÆ.

Off. *Nitrum purificatum*; G. *Nitrate de potasse (Salpêtre purifié)*. Deuto-nitrate de potassium. THEN.

OXYDUM ARSENICI ALBUM.

Off. *Arsenicum album*; G. *Oxide d'arsenic blanc*. Protoxide d'arsenic. THEN.

OXYDUM FERRI LUTEUM.

Off. *Ochra Martis*; G. *Oxide de fer jaune*. Proto-carbonate de fer. THEN.

OXYDUM FERRI NIGRUM.

Off. *Æthiops martialis*; G. *Oxide de fer noir*. Protoxide de fer. THEN.

OXYDUM FERRI RUBRUM.

Off. *Colcothar*; G. *Oxide de fer rouge*. Deutoxide de fer. THEN.

OXYDUM HYDRARGYRI NIGRUM.

G. *Oxide de mercure noir*. Protoxide de mercure. THEN.

OXYDUM HYDRARGYRI GUMMOSUM.

Off. *Mercurius gummosus*; G. *Oxide de mercure gommeux*.

OXYDUM HYDRARGYRI MELLITUM.

Off. *Mercurius mellitus*, s. *Mel hydrargyri*.

OXYDUM HYDRARGYRI RUBRUM per se, vel acido nitrico paratum.

Off. *Mercurius præcipitatus ruber*; G. *Oxide de mercure rouge per se ou par l'acide nitrique*. Deutoxide de mercure. THEN.

OXYDUM HYDRARGYRI SACCHARATUM.

Off. *Mercurius saccharatus*; G. *Oxide de mercure sucré*.

CARBONAS PLUMBI.

Off. *Cerussa*; G. *Carbonate de plomb acéteux (Cerusse)*. Proto-carbonate de plomb. THEN.

OXYDUM PLUMBI RUBRUM.

Off. *Minium*; G. *Oxide de plomb rouge. Deutoxide de plomb.*

OXYDUM PLUMBI SEMI-VITREUM.

Off. *Lithargyrium*, s. *Calx plumbi*; G. *Oxide de plomb demi-vitreux (Litharge). Protoxide de plomb.* TH.

OXYDIUM STIBII ALBUM.

G. *Oxide d'antimoine blanc. Deutoxide d'antimoine.* THEN.

HYDRO-SULFURETUM STIBII RUBRUM.

Off. *Kermes minerale*; G. *Oxide d'antimoine hydro-sulfuré rouge.*

HYDRO-SULFURETUM STIBII LUTEUM.

Off. *Sulphur antimonii auratum*; G. *Oxide d'antimoine hydro-sulfuré jaune ou orangé.*

OXYDUM ZINCI.

Off. *Tutia præparata*, s. *Lapis calaminaris purificatus*, s. *Flores zinci*, s. *Calx zinci*; G. *Oxide de zinc. Protoxide de zinc.* THEN.

OXYGENIUM.

G. *Oxigène.*

PHOSPHAS CALCIS STIBIATUS.

Off. *Pulvis stibiatus*, s. *antimonialis*, PH. L.; G. *Phosphate de chaux antimoiné*; A. *James's powder.*

PHOSPHAS SODÆ.

G. *Phosphate de soude.*

POTASSA.

Off. *Lixivium saponariorum*, s. *Alcali vegetabile causticum*; *Kali purum*; G. *Potasse caustique. Sous-deuto-carbonate de potassium.* THEN.; A. *Potash*, Ge. *Pot-tasche.*

POTASSA FUSA.

Off. *Lapis causticus*, s. *Causticum salinum*; G. *Potasse fondue.*

PTEROCARPUS KINO—GUMMI-RESINA (MUNGO PARK).

Off. *Gummi-resina Kino.*

SODA.

Off. *Alcali minerale causticum*, s. *Natron purum*; soda. G. *Soude.*

STIBIUM, seu ANTIMONIUM.

Off. *Regulus antimonii*; G. *Antimoine.*

SULFAS CUPRI.

Off. *Vitriolum cæruleum*, s. *Cyprinum*, s. *Cupri*; G. *Sulfate de cuivre*. *Deuto-sulfate de cuivre*, THEN. A. *Blue vitriol*; Ge. *Blauer vitriol*.

SULFAS FERRI.

Off. *Vitriolum viride*, s. *Vitriolum ferri*, s. *Sal Martis*; G. *Sulfate de fer*. *Deuto-sulfate de fer*, THEN.; A. *Copperas*, *Green vitriol*; Ge. *Grüner vitriol*.

SULFAS ZINCI.

Off. *Vitriolum album*, s. *zinci*; G. *Sulfate de zinc*. *Deuto-sulfate de zinc*. THEN. A. *White vitriol*; Ge. *Weisser vitriol*.

SULFURETUM CALCIS.

Off. *Hepar calcis*; G. *Sulfure de chaux*.

SULFURETUM HYDRARGYRI RUBRUM.

Off. *Cinnabaris*; G. *Sulfure de mercure rouge*. *Per-sulfure de mercure*. THEN.

SULFURETUM POTASSÆ.

Off. *Hepar sulphuris*; G. *Sulfure de potasse*.

SULFURETUM STIBII NATIVUM.

Off. *Antimonium crudum*; G. *Sulfure d'antimoine noir*; A. *Crude antimony*; Ge. *Spiessglass* (*Spitzglanz*).

SULFURETUM STIBII CUM HYDRARGYRO.

Off. *Æthiops antimonialis*.

SULPHUR PURIFICATUM, seu SUBLIMATUM.

Off. *Flores sulphuris*; G. *Soufre sublimé*; A. *Flowers of sulphur*; *Brimstone*; Ge. *Reiner schwefel*.

TARTRAS HYDRARGYRI.

G. *Tartrate de mercure*.

SUPERTARTRAS POTASSÆ.

Off. *Cremor*, s. *Cristalli tartari*, *Tartarus purificatus*; G. *Crème de tartre*, *Sur-tartrate de potasse*. *Sur-deuto-tartrate de potassium*, THEN.; A. *Cream of tartar*; Ge. *Reiner Weinstein*.

TARTRAS POTASSÆ STIBIATUS.

Off. *Tartarus stibiatus*, s. *Emeticus*; G. *Tartrate de potasse antimoiné*; *Tartre émétique*.

TARTRAS SODÆ.

Off. *Sal rupellense*, s. *Seignetti*; G. *Tartrate de soude* (*Sel de Rochelle*, ou de *Seignette*).

COMPOSITA.

AQUÆ.

AQUA CALCIS.

- ℞ Calcis récenter ustæ, libram unam,
 Sensim affunde aquæ libras octo.
 Agitetur vas paululùm; dein subsidat calx, et aqua
 decantata in lagenis probè obturatis usui servetur.

AQUA CAMPHORATA.

- ℞ Camphoræ, drachmam unam.
 Alcoholis diluti, quantùm satis ut solvatur cam-
 phora; dein adde aquæ fervidæ quantùm opus ut
 camphora soluta teneatur.
 Filtra et serva usui.

AQUA PICEA.

- ℞ Picis liquidæ, libras duas.
 Aquæ, libras octo.
 In vase ligneo vel terreo mixta agita baccillo ligneo
 per horam, deinde per duodecim horas subsidat
 liquor et decantetur.
Usus: Herpes; morbi cutis; blennorrhœa.
Nota. Quandòque, picis loco, sumitur Terebin-
 thina larigna, simulque adduntur Gummi-Resi-
 næ Myrrhæ, drachmæ duæ.

BOLI.

BOLUS EX HYDRARGYRO GLYCYRRHIZATO.

- ℞ Hydrargyri, grana decem.
 Extracti glycyrrhizæ glabræ, scrupulum unum.
 Terantur simul, donec globuli hydrargyri perfectè
 disparuerint.
 Fiat bolus.

BOLUS STIBIATUS.

- ℞ Sulfureti Stibii nigri lævigati, drachmam semis.
 Conservæ herbæ Cochleariæ officinalis, scrupulum
 unum.
 Syrupi simplicis, quantùm satis.
 Ut fiat bolus bis de die sumendus.

CATAPLASMATA.

CATAPLASMA AD BLENNORRHAGIAM primum.

- ℞ Lactis calidi, libram unam.
 Micæ panis, quantum satis.
 Olei olivarum, unciam semis.
 Ut fiat cataplasma.
 Adde, pro re natâ,
 Camphoræ cum oleo tritæ, drachmas duas.

CATAPLASMA AD BLENNORRHAGIAM secundum.

- ℞ Aquæ calidæ, libram unam.
 Acetatis plumbi liquidi, unciam unam—duas.
 Micæ panis quantum satis.
 Misce et adde
 Axungiæ porcinae, uncam unam.

CATAPLASMA DISCUTIENS.

- ℞ Radicis Atropa-mandragoræ pulv. quantum opus.
 Coque cum aquæ sufficiente quantitate ad consistentiam cataplasmatidis.

CEREOLI MEDICATI.

Variæ magnitudinis.

DECOCTA.

DECOCTUM ANTI-CACHECTICUM.

- ℞ Radicis et foliorum recentium Cichorium—intybi.

_____ Rumex-acetosæ.
 _____ Fragaria-vescæ.
 _____ Centaurea-calcitrappæ.
 _____ Violæ odoratæ.

Florum Nymphææ albæ, ana unciam semis.

Petalorum Rosæ gallicæ, uncias duas.

Radiciis parietariæ officinalis, unciam semis.

Concisa et contusa coque in vase terreo et vernice obducto cum aquæ libris duodecim ad libras octo, colaturæ fervidæ adde,

Foliorum Cassia-sennæ, uncias quatuor.

Seminum Pimpinella-anisi pulverisatorum,

Nitratis potassæ fusi pulverisati, ana unciam semis.
Stent in infusione per viginti-quatuor horas; Cola, et
in loco frigido in vasis probè clausis usui serva.

Dosis: Sumat uncias octo jejune per quadriduum; deinde
omni secundo die, per quadraginta-quatuor dies.
Si temperamentum ægri robustum est, sumat
uncias decem vel duodecim pro dosi; et si mor-
bus valdè obstinax, exhibeatur vesperi ante decu-
bitum, loco mane.

DECOCTUM ANTISYPHILITICUM (*Yvon. Gaukes*).

℞ Ligni Guajaci officinalis rasi, uncias tres.
Ligni Juniperi communis, uncias duas.
Radiciis Smilax-chinæ, unciam unam.
Hydrargyri purificati, in sacculo lintei humidoligati,
Sulfureti stibii nigri, in sacculo separatim ligati,
ana unciam unam.
Infunde in aquæ fervidæ libris duodecim, per duode-
cim horas; dein coque ad libras sex.
Sub finem coctionis adde,
Radiciis glycyrrhizæ glabræ, uncias duas.
Cola.—Sumat uncias triginta—quadraginta, calidè
quotidie, per 30 ad 50 dies.

DECOCTUM ARCTIUM-LAPPÆ.

℞ Radiciis Arctium-lappæ concisæ, uncias tres.
Coque in aquæ fontanæ libris tribus,
ad colaturam librarum duarum.
Sumat quotidie.

Usus: In iisdem casibus, ubi Sarsaparilla adhibetur.

DECOCTUM ASTRAGALI EXSCAPI.

℞ Radiciis Astragali exscapi, unciam semis.
Coque in aquæ fontanæ librâ unâ semis,
ad colaturam libræ unius.
Sumat tepidè manè et vespere.

Usus: Syphilis.

DECOCTUM DAPHNE-MEZEREI.

℞ Corticis radiciis Daphne-Mezerei, drachmas sex.
Coque in aquæ fontanæ libris sex, ad libras quatuor;
Sub finem coctionis adde,
Radiciis glycyrrhizæ glabræ unciam unam. Cola.

Dosis: Sumat quotidie libram unam ad libras quatuor,
prout ventriculus fert.

Usus : Scrophula cum syphilitide complicata ; Syphilis rebellis.

DECOCTUM GUAJACI OFFICINALIS.

- ℞ Ligni et corticis Guajaci officinalis rasi, libram unam.
 Infunde in aquæ fervidæ libris octo.
 Per viginti quatuor horas ; dein lento igne coque per sex horas ; addendo sub finem coctionis, Alcoholis, uncias quatuor.
 Radicis glycyrrhizæ glabræ, uncias duas.
 Cola. — Sumat libram semis bis de die.
 Massa à colaturâ residuâ denuò coquatur cum aquæ libris octo per bihorium, coletur.

DECOCTUM GUAJACI (*van Hutten*).

- ℞ Ligni Guajaci officinalis rasi, libram unam.
 Macera in aquæ libris octo per noctem ;
 Sequenti mane lentè coque ad libras quatuor.
 Sumat æger hujus decocti tepidi libras duas de die, vivendo abstinenter et in cubili.
Nota. *Ulricus van Hutten* sese hoc solo decocto perfectè curatum fuisse memorat.

DECOCTUM GUAJACI COMPOSITUM.

- ℞ Ligni et corticis Guajaci officinalis, uncias sex.
 Radicis Laurus-sassafras, uncias quatuor.
 Coque in aquæ fontanæ libris viginti quatuor,
 Ad libras duodecim ; sub finem coctionis adde Radicis glycyrrhizæ glabræ, vel Passularum, uncias duas.
 Cola. — Sumat libras duas de die.

DECOCTUM DRUPÆ FRUCTUS JUGLANDIS.

- ℞ Drupæ fructûs Juglandis regiæ siccatae et contusæ, uncias duas.
 Aquæ libras tres.
 Coque ad colaturam librarum duarum.
Dosis : Uncias ter quaterve de die.

DECOCTUM DRUPÆ JUGLANDIS COMPOSITUM MAL-
 PIGHII.

- ℞ Drupæ Juglandis regiæ siccatae, uncias octo —
 decem.
 Radicis Smilax-sarsaparillæ,
 — Smilax-Chinae, ana unciam semis.

Sulfureti Stibii nativi, in petiâ ligati,

Lapidis pumicis, in petiâ ligati, ana unciam semis.

Macerentur nocte in aquâ, sequenti manè coque in libris octo aquæ, vase clauso; dein adjice petias, et coque residuum ad libras quatuor. Hujus decocti decantati, non filtrati, bibat æger libram unam manè et libram vesperi; superbibendo manè infusum althææ instar potûs theati.

N. B. Quandòque adduntur apices corticis et sepi-
menta nuclej: vel etiam, pro re natâ,

Dosis: Libra semis bis die.

Abstineat æger à carnibus crassis, fumigatis, aut sale conditis; acidis, vino, etc. Cœna sit brevis: in debilioribus decoctum detur parvis dosibus et sæpiùs.

DECOCTUM LOBELIÆ SYPHILITICÆ.

R Radicis Lobeliæ syphiliticæ siccatae et concisæ, un-
ciam semis.

Coque in aquæ fontanæ libris duodecim,
ad colaturam librarum octo.

Sumat libram semis de die initio, deinde libram semis quater de die, donec æger vim purgantem ampliùs ferre non possit; tunc desistat per tres aut quatuor dies; dein iterùm continuat, donec curatus fuerit.

DECOCTUM PRUNUS-PADI.

R Corticis Prunus-Padi, uncias sex — octo.

Coque in aquæ marinæ, vel in ejus defectu, in
Aquæ fontanæ libris octo,
ad colaturam librarum quatuor.

Sumat libram unam omni manè, in quatuor haus-
tus divisam.

DECOCTUM SAPONARIÆ OFFICINALIS.

R Herbæ saponariæ officinalis recentis contusæ,
libram semis.

Aquæ, libras octo.

Coque ad colaturam librarum quatuor.

Sumat libras duas — quatuor quotidie.

Usus: Syphilis; Scrophula; morbi cutanei; blennor-
rhagia.

DECOCTUM SMILAX SARSAPARILLÆ.

- ℞ Radicis Smilax-sarsaparillæ concisæ, uncias tres.
 Infunde in aquæ fervidæ libris tribus per duodecim
 horas ;
 Dein coque ad colaturam librarum duarum.
 Sumat quotidie ; et, si placet, cum lacte.
N. B. Quidam decocto huic decoctum Buxi sub-
 stitui cum fructu posse asserunt.

DECOCTUM SARSAPARILLÆ CORRECTIUS.

- ℞ Radicis Smilax-sarsaparillæ concisæ uncias tres.
 Aquæ bullientis, libras tres.
 Infunde per horas quatuor propè ignem ; dein ex-
 presso liquore, probè contundatur radix, cui
 iterum adjice liquorem ; macera per horas sep-
 tem ; postea coque ad libras duas, et fortiter ex-
 primendo cola.
 Sumat libram semis, ter quaterve de die.
N. B. Quandòque in morbis syphiliticis rebellibus
 huic decocto cum successu additur carbonatis
 sodæ drachma una, de die.

DECOCTUM SARSAPARILLÆ CUM MEZEREIO.

- ℞ Radicis Smilax-sarsaparillæ, uncias tres.
 Corticis radice Daphne-mezerei, drachmas duas.
 Concisa coque in aquæ fontanæ libris tribus ad
 libras duas.
 Sub finem coctionis adde,
 Radicis Glycyrrhizæ glabræ concisæ, unciam unam.
 Sumat quater de die libram semis.

DECOCTUM SARSAPARILLÆ COMPOSITUM.

- ℞ Radicis Smilax-sarsaparillæ,
 Ligni Laurus-sassafras pulv.
 — Pterocarpi sandalini,
 — Guajaci officinalis, ana uncias tres.
 Radicis Daphne-mezerei, unciam unam.
 Seminum Coriandri sativi, drachmas sex — unciam
 unam.
 Concisa coque in aquæ fontanæ libris viginti ad
 libras decem.
 Sumat libram unam — tres de die.

-Vel :

- ℞ Radicis Smilax-sarsaparillæ.

Ligni Pterocarpi sandalini,
 — Sandali albi, ana uncias tres.
 Radicis Glycyrrhizæ glabræ,
 — Daphne-mezerei, ana unciam semis.
 Ligni Genistæ Canariensis,
 — Guajaci officinalis,
 — Laurus-sassafras, ana unciam unam.
 Sulfureti stibii nativi, uncias duas.
 Concisa infunde in aquæ fervidæ libris decem per
 viginti-quatuor horas; dein coque ad colaturam
 librarum quinque.
 Sumat libram unam semis ad libras quinque quo-
 tidie.

DECOCTUM SOLANUM-DULCAMARÆ.

℞ Stipitum Solanum-dulcamaræ recentium conci-
 sorum, drachmam semis drachmas tres.
 Coque in aquæ fontanæ librâ unâ, ad colaturam
 libræ semis.
 Sumat quotidie cum anaticâ portione lactis.
Usus: Lepra; Herpes; Scrophula; Symptomata sy-
 philitidis inveteratæ et rebellis.

ELECTUARIA.

ELECTUARIUM ANTI-SYPHILITICUM. STOLL.

℞ Roob baccarum Sambuci nigri, uncias tres.
 Extracti Gratiolæ officinalis, drachmas tres.
 Oxymuriatis Hydrargyri, grana tria.
 Misce.
Nota. Quandòque extracto Gratiolæ extractum
 Aconiti cammari eâdem dosi cum fructu substi-
 tuitur.
Usus: Herpes; tumores dolentes, aliave syphilitidis re-
 bellis symptomata (STOLL.)

ELECTUARIUM CINCHONÆ ALCALISATUM.

℞ Carbonatis sodæ, drachmas duas.
 Corticis Cinchonæ officinalis pulverisati, unciam
 unam.
 Mucilaginis gummi acaciæ, quantum satis.
 Misce.
 Sumat drachmas duas bis terve de die.

Usus : Scrophula cum syphilitide complicata; morbi ex hydrargyro orti.

ELECTUARIUM LAXANS.

- ℞ Pulpæ frutûs Tamarindi Indicæ, unciam unam.
Sulphuris præcipitati.
Nitratis potassæ, ana drachmam unam.
Syrupi corticum fructus Citrus-aurantii, quantum
satis, ut fiat Electuarium, magnitudine nucis
moschatae manè et vespere sumendum.

EMULSIONES.

EMULSIO AMYGDALINA.

- ℞ Amygdalarum dulcium decorticatarum, uncias
duas.
Terantur in mortario successivè addendo,
Aquæ fontanæ libras duas.
Aquæ corticis Laurus-cinnamomi, uncias duas.
Sacchari albi, quantum satis ad gratiam.

EMULSIO CAMPHORATA.

- Fit addendo priori,
Camphoræ, amygdalis vel pineis subactæ, grana
viginti quatuor.

ENEMATA.

ENEMA CATHARTICUM.

- ℞ Decocti Hordei, vel juris carniûm, uncias sex.
Olei seminum Lini usitatissimi, uncias duas.
Sulfatis sodæ (*vel* Sulfatis potassæ) unciam unam.
Misce ac sensim cautè injiciatur.

ENEMA SEDATIVUM.

- ℞ Olei Olivarum (vel olei Lini), uncias quatuor.
Tincturæ opii, guttas quadraginta, ad sexaginta.
(Aut extracti opii aquosi, grana duo — tria).
Vel :
℞ Amyli, drachmam unam semis.
Adde paulatim terendo,
Aquæ bullientis, libram semis.
Coque paulisper, et adde,

Tincturæ opii, drachmam unam.
Misce.

Usus : Dolores spasmodici colli vesicæ aut prostatae.

GARGARISMATA.

GARGARISMA E BORACE.

℞ Subboratis sodæ, unciam unam.
Solve in aquæ fervidæ librâ unâ ; adde
Mellis,
Tincturæ Myrrhæ, ana uncias duas.

Usus : Ulcera oris et faucium ex usu hydrargyri productis.

GARGARISMA EX ALCOHOLE.

℞ Alcoholis diluti (vel pro re natâ),
Alcoholis concentrati, quantum placet.

Usus : Ulcera faucium asthenica et syphilitica.

GARGARISMA EX HYDRARGYRO.

℞ Decocti Hordei, libram unam.
Oxymuriatis Hydrargyri, grana sex.

HAUSTUS.

HAUSTUS AD BLENNORRHŒAM.

℞ Resinæ liquidæ Copaiferæ officinalis, drachmam semis.

Dissolve in vitelli ovi dimidio ; dein adde,

Gummi acaciæ, drachmam unam.

Aquæ, uncias quatuor.

Misce, pro haustu manè et vespere sumendo.

Vel :

℞ Resinæ liquidæ Copaiferæ officinalis, guttas triginta — quadraginta.

Aquæ, unciam unam.

Sumat manè et vespere.

INFUSA.

INFUSUM CANNABIS SATIVÆ.

℞ Semen Cannabis sativæ, unciam unam.

Infunde in aquæ fervidæ libris quatuor, per mediam horam. — Cola.

Bibat pro potu ordinario cum sacchari quantum satis ad gratiam.

INFUSUM LEDI PALUSTRIS.

℞ Herbae Ledi palustris, unciam semis.

Infunde per horam et cola.

Sumat libram semis ad libram uniam de die.

INFUSUM MALVÆ.

℞ Foliorum Malvæ rotundifoliæ, manipulos tres.

Infunde in aquæ fervidæ, libris quatuor.

Cola. Pro potu ordinario cum saccharo.

INJECTIONES.

INJECTIO AD BLENNORRHAGIAM SYPHILITICAM.

℞ Oxymuriatis Hydrargyri, granum semis — unum.

Aquæ destillatæ, libram unam.

Misce, injiciat portionem omni horâ vel bihorio.

Vel :

℞ Aquæ destillatæ, uncias sedecim.

Oxymuriatis hydrargyri, grana duo.

Acetatis Plumbi liquidi, guttas triginta.

Misce. Portio hujus ter quaterve de die post mictionem injiciatur.

Vel :

℞ Oxymuriatis hydrargyri grana quatuor.

Aquæ rosæ, libram unam.

Tincturæ opii, drachmam semis.

Misce.

INJECTIO EX ACETATE ZINCI.

℞ Oxydi Zinci sublimati, quantum placet.

Acidi Acetici, quantum opus ad perfectam solutionem.

Hujus Solutionis, guttas viginti

Misce cum Aquæ puræ, unciis quatuor.

Injiciat portionem sæpius de die.

INJECTIO OLEOSA.

℞ Olei Olivarum, uncias tres.

Injiciat ter quaterve de die portionem.

INJECTIO SEDATIVA (*Alex. Hamilton*).

Extracti Opii aquosi, drachmas tres.

Aquæ destillatæ, uncias duodecim.

Solve et adde,

Acetatis Plumbi crystallisati, drachmam unam —
duas.

Misce. Injiciat portionem quater de die, reddito
priùs lotio.

Vel :

R Extracti opii aquosi, drachmam unam.

Solve in Aquæ Rosæ libris duabus.

Adde,

Acetatis Plumbi liquidi, guttas sexaginta.

INJECTIO ALUMINOSA COMPOSITA.

R Aluminis, drachmam semis.

Acetatis Plumbi, drachmam unam.

Sulfatis Zinci,

Muriatis ammoniacæ, ana grana octodecim.

Aquæ destillatæ, uncias sedecim.

Nota. Hæc miscella apparenter incongrua in qui-
busdam Blennorrhœis rebellibus efficax est.

INJECTIO EX SULFATE ZINCI CAMPHORATA.

R Sulfatis Zinci, grana sexaginta.

Aquæ camphoratæ, uncias duas.

Aquæ puræ, uncias triginta.

Misce.

INJECTIO EX SULFATE CUPRI.

R Sulfatis Cupri, grana quatuor — sex.

Aquæ destillatæ, uncias quatuor.

Misce.

INJECTIO EX HYDRARGYRO ET PLUMBO COMPOSITA.

R Oxydi plumbi semi-vitrei, unciam unam.

Oxymuriatis Hydrargyri drachmam semis.

Acidi acetici, uncias quinque.

Digere in loco calido per duodecim horas, sæpiùs
agitâtâ phialâ; dein effunde liquorem per sub-
sidentiam depuratum, qui servetur usui.

Hujus liquoris drachmæ duæ aut tres misceantur
cum aquæ destillatæ unciis quatuor, ejusque
portio ter quaterve de die injiciatur.

INJECTIO EX GUMMI-RESINA KINO.

R Gummi-resinæ Pterocarpus-Kino, grana viginti —
triginta.

Aquæ bullientis, libram unam.
Infunde per horam et cola.

INJECTIO EX GALLIS.

℞ Gallarum pulverisatarum, drachmas duas.
Aquæ bullientis, libram unam.
Infunde per horam et cola.

INJECTIO AD BLENNORRHŒAM. (*Justamond*).

℞ Sulfatis Zinci, drachmas duas.
Acetatis Plumbi crystallisati, scrupulos quatuor.
Camphoræ pauxillo alcoholis tritæ, scrupulum unum semis.
Extracti Opii aquosi, scrupulum unum.
Aquæ Rosæ, libras duas—quatuor. Misce et cola.
Nota. Quandòque, loco acetatis plumbi, adduntur oxymuriatis Hydrargyri, grana duo—quatuor.

INJECTIO AD LEUCORRHŒAM (*Younge*).

℞ Acetatis Plumbi crystallisati, drachmas duas.
Aquæ Rosæ, libram unam semis.
Aceti ordinarii, libram semis.
Misce. Portio hujus in vaginam sæpiùs de die injiciatur.

INJECTIO AD PHIMOSIN.

℞ Sulfatis Cupri, grana sex.
Aquæ puræ, uncias quatuor.
Solutioni adde,
Acetatis Plumbi liquidi, guttas viginti.

LINCTUS.

LINCTUS AD APHTHAS.

℞ Mucilaginis seminum Pyrus-cydoniæ,
Syrupi fructûs Mori nigræ, ana unciam unam.
Subboratis sodæ, drachmam unam—duas.

Usus: Aphthæ; ulcera oris ex hydrargyro.

LINIMENTA.

LINIMENTUM AMMONIACÆ FORTIUS.

℞ Ammoniacæ, unciam unam.
Olei Olivarum, uncias duas.

LINIMENTUM AMMONIACÆ MITIUS.

℞ Carbonatis ammoniacæ liquidi, drachmas tres—
quatuor.

Olei Olivarum, uncias duas.

Quandòque adduntur

Alcoholis camphorati, drachmæ tres.

LINIMENTUM CAMPHORATUM.

Camphoræ tritæ, uncias duas.

Olei Palmæ liquefacti et ferè frigefacti, libram unam.

Usus: Egregius ad suppurationem promovendam, et ad dolores sedandos.

LINIMENTUM CUPRATUM.

℞ Carbonatis Cupri, grana quatuor.

Olei Olivarum, unciam unam.

Linteum carptum hocce liquido imprægnatum applicetur ulceribus, semel de die.

LINIMENTUM EX HYDRARGYRO.

℞ Solutionis Hydrargyri in Acido Nitrico, quantum placet.

Saponis ex oleo amygdalino aut butyro cacao et potassâ parati, quantum opus.

Solve saponem in aquâ fervidâ, eique addè successivè, constanter movendo, solutionem hydrargyri.

Nota. Theoria hujus processûs est compositio et decompositio duplex: Acidum nitricum sese potassæ unit, dum oleum liberum cum hydrargyro junctum oxydum hydrargyri unguinosum constituit, quod usui externo æquè ac interno utiliter servire potest.

LINIMENTUM EX SUBMURIATE HYDRARGYRI.

℞ Submuriatis hydrargyri, præcipitatione parati, drachmam unam, vel duas.

Cerati albi (vel medullæ ossium, aut mellis), unciam unam.

Misce.

LINIMENTUM RESOLVENS.

℞ Alcoholis diluti, uncias octo.

Carbonatis potassæ liquidi, unciam unam.

———— Ammoniacæ liquidi, drachmas duas.

Misce.

Vel:

℞ Ammoniacæ, unciam semis.

Petrolei, unciam unam semis.
Misce.

LIQUORES.

LIQUOR AD CONDYLOMATA (PLENCK).

℞ Alcoholis,
Acidi acetici, ana unciam semis.
Oxymuriatis hydrargyri, drachmam unam.
Aluminis,
Camphoræ,
Carbonatis Plumbi, ana drachmam semis.
Misce.

Usus : Verrucæ aut Condylomata penicillo hoc liquore madido semel vel bis de die tangantur.

LIQUOR AD ULCERA ORIS ET FAUCIUM.

℞ Tincturæ Myrrhæ, unciam unam.
Mellis Cuprati, unciam semis.
Misce. Portio hujus applicetur penicillo, manè et vespere.

Vel :

℞ Sulfatis Cupri, grana duo,
Aquæ destillatæ, uncias quatuor.
Misce.

Vel :

℞ Nitratis Argenti, partem unam,
Aquæ destillatæ, partes mille.

Usus : Hic liquor ab *Hahnemann* multum laudatur in ulceribus oris aliarumve corporis partium, ex usu hydrargyri causatis.

LIQUOR AD ULCERA ASTHENICA.

℞ Oxymuriatis Potassæ, drachmam unam.
Aquæ destillatæ, uncias duodecim.
Portio hujus liquoris penicillo applicetur, semel vel bis de die.

LOTIONES.

LOTIO EX ALCOHOLE.

℞ Alcoholis simplicis vel aromatisati, quantum placet.
Linteum carptum eo madidum sæpius de die ulceri applicetur.

LOTIO EX HYDRARGYRO ET PLUMBO COMPOSITA.

- ℞ Oxymuriatis Hydrargyri, grana decem.
 Acetatis Plumbi crystallisati, drachmam semis.
 Aquæ Rosæ, libram unam.
 Misce.

LOTIO PLUMBATA.

(*Vulgò Aqua Saturnina, Goulard*).

- ℞ Aquæ destillatæ, libras duas.
 Alcoholis, unciam unam.
 Acetatis Plumbi liquidi, drachmas duas—quatuor.
 Misce.
 Quandòque, loco alcoholis, adduntur
 Alcoholis Camphorati, drachmæ duæ—quatuor.

LOTIO SYPHILITICA LUTEA.

(*Vulgò Aqua phagedænica*).

- ℞ Oxymuriatis Hydrargyri, grana tringinta.
 Aquæ Calcis, libras duas.
 Triturando misce.

LOTIO SYPHILITICA NIGRA.

- ℞ Submuriatis Hydrargyri, drachmam unam.
 Aquæ Calcis, uncias quatuor. Misce.

LOTIO EX SULFATE ZINCI.

- ℞ Sulfatis Zinci, grana duo.
 Aquæ destillatæ, uncias quatuor.

LOTIO ZINCI COMPOSITA.

- ℞ Aquæ Calcis, uncias duas.
 Oxydi Zinci sublimati, grana duodecim.
 Sulfatis Cupri, grana tria—quatuor.
 Mellis rosacei, drachmam unam.

Usus: Hæc lotio secretè habita, nuper recommendata fuit ut remedium eximium ad ulcera phagedænica genitalium.

LOTIO ZINCI CAMPHORATA.

- ℞ Sulfatis Zinci,
 Alcoholis Camphorati, ana unciam semis.
 Aquæ destillatæ fervidæ, libras duas,
 Misce et per chartam cola.

Usus: Ulcera asthenica, flaccida.

MELLA.

MEL CUPRATUM.

- ℞ Carbonatis Cupri, unciam unam.
 Aceti ordinarii, uncias septem.
 Solutioni adde,
 Mellis despumati, uncias quatuordecim.
 Coque leni igne ad consistentiam congruam.

Usus : Egregius externus in ulceribus asthenicis.

MEL HYDRARGYRATUM.

- ℞ Hydrargyri,
 Mellis, ana unciam unam.
 Tere simul, donec hydrargyrum perfectè disparuerit.

Usus : Hoc Mel ad deliganda ulcera syphilitica omnibus unguentis præferri meretur.

Vel :

- ℞ Submuriatis hydrargyri, præcipitatione parati drachmam unam—duas.
 Mellis, unciam unam.
 Misce.

Usus : Idem ac prioris.

MIXTURÆ.

MIXTURA LAXANS.

- ℞ Gummi acaciæ veræ, unciam unam.
 Olei Amygdalarum, uncias duas.
 Decocti Hordei, uncias decem.
 Mellis, unciam unam.
 Misce. Sumat cochlearia quatuor bis terve die.

PILULÆ.

PILULÆ AD BLENNORRHŒAM ROBORANTES.

- ℞ Sulfatis Cupri, grana decem.
 Radicis Rhei palmati, drachinam unam.
 Extracti Cinchonæ officinalis, drachmas duas.
 Misce ut fiant pilulæ numero triginta.
 Sumat pilulam unam—duas bis de die.

PILULÆ AD BLENNORRŒAM STIMULANTES.

- ℞ Terebinthinæ coctæ, drachmas duas.
 Radicis Rhei palmati, drachmam unam.
 Misce ut fiat massa dividenda in pilulas triginta sex.
 Sumat pilulas quatuor bis de die.
Nota. Quandoque adduntur limaturæ ferri, vel Oxydi ferri lutei, grana decem.

Vel:

- ℞ Gummi acaciæ.
 Radicis Rhei palmati, ana unciam unam.
 Resinæ liquidæ Copaiferæ officinalis, quantum satis,
 ut fiant pilulæ granorum quatuor.
 Sumat Pilulas quatuor—sex manè et vespere.

Vel:

- ℞ Resinæ liquidæ Pinus Balsameæ, uncias duas.
 Gummi-resinæ Kino, unciam semis.
 Radicis Tormetillæ erectæ, quantum satis, ut fiant
 pilulæ granorum quinque.
 Sumat pilulas quatuor manè et vespere.

PILULÆ CATHARTICÆ.

- ℞ Massæ pilularum Rufi, drachmam semis.
 Submuriatis hydrargyri, grana octo.
 Misce; fiant pilulæ numero tres.
 Sumantur pro dosi.

PILULÆ EX HYDRARGYRO GLYCYRRHIZATO.

- ℞ Hydrargyri,
 Extracti mollis Glycyrrhizæ glabræ, ana unciam unam.
 Radicis Glycyrrhizæ glabræ pulverisatæ, drachmam unam.
 Hydrargyrum cum extracto glycyrrhizæ tere, donec globuli hydrargyri disparuerint; deinde adde pulverem glycyrrhizæ, ut fiat massa in pilulas granorum quinque formanda.
 Sumat pilulas duas hora somni, vel omni manè et vespere.

PILULÆ EX HYDRARGYRO GUMMOSO.

- ℞ Hydrargyri purificati, scrupulum unum.
 Amyli, drachmam unam.
 Terantur cum mucilaginis gummi acaciæ quantum sufficit, donec globuli hydrargyri perfectè dispa-

ruerint ; dein formentur inde cum pulvere radicis
Glycyrrhizæ glabræ, pilulæ numero viginti.
Sumat pilulas duas—quatuor omni die.

PILULÆ EX HYDRARGYRO MELLITO.

℞ Hydrargyri,
Mellis, ana unciam unam.
Extracti Glycyrrhizæ glabræ, uncias duas;
Vel pro re natâ :
Gummi-resinæ Guajaci officinalis, quantum satis, ut
fiant pilulæ granorum quatuor.
Sumat pilulas duas—tres manè et vespere.

PILULÆ EX SUBMURIATE HYDRARGYRI.

℞ Submuriatis Hydrargyri præcipitatione parati,
drachmam semis.
Opii, grana quindecim.
Tartratis Potassæ stibiati, grana quatuor.
Syrupi simplicis, quantum satis, ut fiat massa divi-
denda in pilulas quindecim.
Sumat pilulam unam omni nocte.

PILULÆ E SULFURETO HYDRARGYRI STIBIATO.

℞ Hydrargyri, uncias quatuor.
Sulfureti stibii nigri, uncias tres.
Sulphuris sublimati, uncias duas.
Misce. Probè et diù tritis, adde
Mellis quantum satis, ut fiant pilulæ granorum quin-
que.
Sumat pilulas quatuor bis terve de die.

Usus : Morbi ossium syphilitici.

PILULÆ SEDATIVÆ.

℞ Extracti Opii aquosi, drachmam unam.
Camphoræ, drachmas duas.
Syrupi simplicis, quantum satis,
Quandòque adduntur,
Tartratis Potassæ Stibiati, grana quindecim.
Fiant inde pilulæ sexaginta.
Sumat Pilulam unam vel duas omni nocte.

Usus : Dysuria nec non· Blennorrhagia chordata, cum
usu externo unguenti hydrargyri camphorati.

PULVERES.

PULVIS CATHARTICUS.

℞ Pulveris radicis Convolvulus-jalappæ, grana viginti.

Submuriatis hydrargyri præcipitatione parati, grana decem.

Misce.

Vel:

℞ Sulfatis potassæ,

Radicis convolvulus-jalappæ, ana drachmam semis.

Misce, pro dosi.

Vel:

℞ Pulveris radicis Rhei palmati, grana viginti.

Supertartratis potassæ, grana decem.

Misce.

PULVIS AD EXCRESCENTIAS.

℞ Pulveris Juniperus-Sabinæ,

Oxydi ferri rubri,

Aluminis fusi, ana partes æquales.

Vel:

℞ Pulveris Juniperus-Sabinæ,

Carbonatis cupri, ana partes æquales.

PULVIS ESCHAROTICUS CÆRULEUS.

℞ Sulfatis cupri, quantum opus.

PULVIS ESCHAROTICUS RUBER.

℞ Oxydi hydrargyri rubri, quantum opus.

Vel:

℞ Aluminis fusi,

Oxydi hydrargyri rubri, ana drachmam unam.

Misce.

PULVIS EX SUBMURIATE HYDRARGYRI.

℞ Submuriatis hydrargyri, præcipitatione parati, granum unum — duo.

Sacchari, grana quindecim.

Misce. Sumat omni nocte.

PULVIS NITROSO-CAMPHORATUS.

℞ Gummi acaciæ, scrupulum unum.

Nitratis potassæ, grana decem.

Camphoræ pineis subactæ, grana quatuor — octo.
Misce. Sumat pulverem talem quater de die.

Vel :

Nitratis potassæ,
Sacchari, ana grana quindecim.
Camphoræ pineis subactæ, grana duo — quatuor.
Misce, fiat pulvis, omni bihorio sumendus.

PULVIS SUDORIFICUS *Doveri*.

R Nitratis potassæ,
Sulfatis potassæ, ana uncias quatuor.
Terantur simul in pulverem tenuem, et immit-
tantur in crucibulum ut igne liquescant; materiæ
dein in mortarium ferreum effusæ et adhuc ca-
lenti adde.
Opii puri siccati, unciam unam.
Dein post triturationem adjice,
Radiceis Ipecacuanhæ pulverisatæ, unciam unam.
Ut fiat pulvis subtilissimus.
Sumat æger grana quindecim — viginti manè in
lecto, corpore danno laneo involuto, superbi-
bendo horâ post assumptum pulverem, seri lactis
vinosi calidi uncias tres, et repetendo eandem
dosin seri lactis omni semi-hora, donec copiosè
fluxerit sudor.

PULVIS STIBIATUS, seu ANTIMONIALIS.

(Anglis *James's powder*).

R Sulfureti stibii nigri pulverisati.
Cornu cervi rasi, ana partes æquales.
Mixta injice ollæ ferreæ latae ad rubedinem cale-
factæ, et assiduè agita, donec colore cinereo fue-
rint. Materiam refrigeratam in pulverem tere, et
crucibulo loricato immitte. Crucibulum aliud
inversum, cui parvum sit in fundo foramen, luto
conjunge. Ignem subministra, quem ad rube-
dinem sensim auge, et ita auctum serva per horas
duas. Denique materiam frigefactam in pul-
verem subtilissimum tere.

SOLUTIONES.

SOLUTIO GUMMOSA.

- ℞ Gummi acaciæ, pulverisati, drachmas duas.
Solve in Aquæ fervidæ (*vel* in decocti Hordei)
libris duabus.

SOLUTIO OXYMURIATIS HYDRARGYRI.

- ℞ Oxymuriatis hydrargyri, grana sexaginta quatuor.
Aquæ destillatæ, uncias quatuor.
Muriatis ammoniacæ, drachmam unam.
Misce.
Sumat guttas sedecim in librâ unâ decocti Sarsaparillæ, vel Malti aut Hordei, omni die.
Quandòque dosis guttarum ad quadraginta-octo
gradatim augetur; addendo, pro re natâ,
Laudani liquidi Sydenhami guttulas viginti.
Nota. Sedecim guttæ hujus solutionis continent
granum semis salis hydrargyri.

SOLUTIO NITRATIS HYDRARGYRI AMMONIACALIS.

- ℞ Acidi nitrici diluti, libram unam.
Carbonatis ammoniacæ, uncias septem.
Misce et, cessante effervescentiâ, adde
Hydrargyri puri, uncias octo, vel tantum quantum
balneo arenæ solvere possit liquor, dein evaporâ
massam ad crystallisationem.
Hujus salis triplicis sicci, unciam unam.
Aquæ rosæ, uncias tres.
Iterum solve calore arenæ.
Dosis: Guttas duas — tres ex cyatho aquæ fontanæ,
semel de die.
Nota. Hæc solutio creditur esse genuina præpa-
ratio guttularum quæ, Londini, sub nomine
D. Ward's White drop, venduntur.

SYRUPI.

SYRUPUS ANTISYPHILITICUS.

(Vulgò *Sirop de Cuisinier*).

- ℞ Radicis Smilax-Sarsaparillæ incisæ, uncias tri-
ginta.
Infunde per viginti-quatuor horas in
Aquæ fontanæ, libris viginti-quatuor,
Dein coque ad libras octo; et repete eandem ope-
rationem bis cum magmate, effundendo liquorem

singulâ vice ; misce libras viginti-quatuor decocti
tribus vicibus sic obtenti, eique adde
Florum Borruginis officinalis,
Petalorum Rosæ albæ,
Seminum Pimpinella-anisi, ana drachmas duas.
Foliorum Cassia-sennæ, unciam unam semis.
Coque ad libras duodecim, colaturæ adde
Sacchari,
Mellis, ana libras duas,
Ut fiat lege artis Syrupus.

Sumat uncias sex hujus syrupi quotidie, quibus, pro
re natâ, admiscetur oxymuriatis hydrargyri, gra-
num dimidium ; et hæc dosis in tres portiones
æquales dividatur, ita ut æger uncias duas sumat
ter de die ; adhibendo simul pro potu ordinario
decoctum Sarsaparillæ ex drachmis sex hujus
radicis et aquæ libris sex paratum.

Nota. Si alvum nimium movet, diminuatur dosis
sennæ ; sin minus, augeatur.

N. B. Si Arundo phragmites cum æquali portione
Sarsaparillæ decoquatur eodem modo, obtinetur
Syrupus, in Galliâ, sub nomine *Robanti syphi-
litique*, notus.

SYRUPUS HYDRARGYRI.

℞ Oxydi hydrargyri nigri, scrupulum unum.
Gummi acaciæ, scrupulos tres.
Extracti glycyrrhizæ, quantum satis.
Tere in mortario non metallico, ut intime misce-
antur ; deinde adde
Syrupi simplicis, unciam unam semis.
Sumat manè et vespere cochleare parvulum, ex
ligno vel ebure confectum.

TINCTURÆ.

TINCTURA ÆTHERIS FERRATI.

℞ Limaturæ ferri lævigatæ, unciam unam.
Acidi muriatici concentrati, quantum satis ut fer-
rum perfectè solvatur.
Solutio per aliquot tempus quieti exposita filtretur ;
dein ex retortâ vitreâ in balneo arenæ destilletur

ad siccitatem. Massa in retortâ residua in loco humido seponatur, donec deliquescat. Massa deliquescens phialæ epistomio vitreo instructæ immittatur, eique ætheris sulfurici concentrati uncia duæ addantur; tunc phialâ exactè clausâ probè agitur, unde maxima pars ferri ætheri jungitur. Quamprimum æther ferro imprægnatus post brevem quietem supernatat, à liquore inferiori effundatur et cum duplâ quantitate alcoholis misceatur, atque in vâse vitreo exactissimè clauso usui servetur.

Nota. Hæc tinctura est præparatio correcta *Tincturæ nervinæ* jure celebris, quæ diu secreta habita, nuper Imperatricis Russiæ munificentia, publici juris facta est.

Vel melius :

℞ Muriatis ferri liquidi,
Ætheris sulfurici, ana partes æquales.

Affunde ætherem muriati ferri, et relinque per quadrantem horæ, quo elapso æther ferro junctus et acido supernatans cautè decantetur, et in vasis probè clausis usui servetur.

TINCTURA GAMBOGIÆ AMMONIACATA.

℞ Gummi resinæ Gambogiæ-guttæ pulverisatæ,
grana triginta-sex.

Alcoholis ammoniacati (vulgò, *Spiritus salis ammoniaci vinosi*, seu *dulcis*), uncias quatuor.

Misce et digere per octiduum.

Usus : Morbi cutanei rebelles.

Dosis : Cochleare unum — duo minora manè et vespere.

TINCTURA FERRATA.

℞ Sulfatis ferri,
Supertartratis potassæ, ana uncias quatuor.

Aquæ fontanæ, libras sex.

Coquantur in vase ferreo, sub continuâ agitatione, ad siccitatem ferè, tunc adde

Aquæ corticis Laurus-cinnamomi, uncias quatuor.

Huic solutioni adjice,

Ætheris sulphurici alcoholisati, uncias octo.

Digerantur et filtrentur.

TINCTURA LYTTE VESICATORIÆ.

℞ Lyttæ vesicatoriæ, drachmas duas.

Alcoholis diluti, libram unam.

Digere per octiduum et cola.

Usus : Præcipuè externus in ulceribus phagedænicis et excrescentiis syphiliticis.

TINCTURA MURIATIS FERRI.

℞ Oxydi ferri uncias duas.

Acidi muriatici concentrati, libram unam.

Digere per triduum, sæpiùs agitatâ phialâ, dein effunde liquorem per subsidentiam depuratum, eique adde,

Alcoholis diluti, libras tres.

TROHISCI.

TROHISCI EX ACETATE HYDRARGYRI.

℞ Hydrargyri purificati, libram unam

Acidi nitrici, quantum opus ad perfectam hydrargyri solutionem ; dein adde

Acetatis potassæ in aquâ soluti, quantum opus ad hydrargyrum præcipitandum.

Sume hujus pulveris (coloris perlati) præcipitati quantum placet.

Misceatur trititando cum mannâ, melle, vel saccharo, et cum mucilagine fiant lege artis Trohisci, qui, in Galliâ, vulgò sub nomine *Dragées de Keyser*, venduntur.

TROHISCI EX HYDRARGYRI SACCHARATO.

℞ Hydrargyri purificati, unciam unam.

Sacchari candi, uncias duas.

Triturentur in mortario, addendo paucas guttulas aquæ, donec globuli hydrargyri perfectè disparuerint ; tunc ex massâ, lege artis, fiant cum mucilagine Trohisci ponderis granorum decem.

Dosis : Trohiscus unus, vel duo, manè et vespere.

Nota. Quandòque, gratiæ causâ, adduntur guttulæ aliquot olei volatilis baccarum Juniperi communis, vel florum Citrus-aurantii.

UNGUENTA.

UNGUENTUM NITRICATUM.

- ℞ Axunginæ porcinae purificatae, libram unam.
Liquefiat leni igne, dein adde,
Acidi nitrici (32 graduum), uncias duas.
Massam, igni expositam, tubo vitreo diligenter
agita, donec ebullire cœperit, tunc ab igne re-
motam depone ut frigescat.

Usus : Ulcera syphilitica ; Herpes ; Psoriasis.

UNGUENTUM AD BLENNORRHAGIAM CHORDATAM.

- ℞ Unguenti hydrargyri nigri, unciam unam.
Camphoræ unciam semis.
Misce exactè terendo.
Inungatur urethra hoc unguento, et indè fiat simul
species cataplasmatidis.

UNGUENTUM E CUPRO.

- ℞ Unguenti digestivi, unciam unam.
Carbonatis cupri, scrupulum unum.
Misce.

UNGUENTUM E CUPRO (*Archigenis*).

- ℞ Carbonatis cupri, drachmas tres — quatuor.
Thuris, drachmas duas.
Simul probè pulverisata tere cum aceto et adde,
Terebinthinæ, drachmam unam.

Usus : Morbi cutis rebelles.

N. B. Partibus præviè probè perfricatis impone
portionem hujus unguenti per horam, aut bi-
horium, deinde per idem temporis spatium tolle,
et sic alternatim.

UNGUENTUM HYDRARGYRI NIGRUM.

- ℞ Hydrargyri,
Axunginæ porcinae purificatae, ana partes æquales,
Paulatim tritis, adde,
Olei amygdalini pauxillum et perge terendo, donec
globuli hydrargyri disparuerint, quod efficaciter
promovetur oleo amygdalino.

Vel.

- ℞ Oxydi hydrargyri nigri, uncias duas.
Sevi ovilli purificati, unciam semis.

SYPHILITICA.

Simul probè tritis adde,
Butyri cacao, unciam unam semis.
Misce, et in loco frigido et obscuro usui serva.

Vel.

℞ Hydrargyri purificati, unciam unam.
Oxydi hydrargyri rubri, grana decem.
Terantur simul donec hydrargyrum colorem griseum
aut nigricantem acquisiverit; dein adde,
Axungiae porcinae purificatae, unciam unam.
Usui serva ut priùs.
Nota. Vide etiam suprà *Linimentum*.

UNGUENTUM EX SUBMURIATE HYDRARGYRI.

℞ Submuriatis hydrargyri, præcipitatione parati,
drachmam unam — duas.
Cerati albi (aut Medullæ ossium) unciam unam.
Usus: Ulcera syphilitica; vel etiam pro frictionibus,
loco unguenti hydrargyri nigri.

UNGUENTUM EX MURIATE HYDRARGYRI AMMONIACALI.

℞ Muriatis hydrargyri ammoniacalis, drachmam unam.
Axungiae porcinae, unciam unam.
Usus: Morbi cutis.

UNGUENTUM E NITRATE HYDRARGYRI.

℞ Hydrargyri purificati,
Acidi nitrici, ana unciam unam.
Digere in balneo arenæ, donec hydrargyrum solva-
tur; dein adde solutioni adhuc calidæ, diligen-
ter agitando,
Olei olivarum, uncias quatuor.
Axungiae porcinae purificatae, uncias sex—octo.
Simul fusa, constanter agita usque frigescant.
N. B. Aliquandò adduntur Camphoræ drachmæ duæ.

Vel.

℞ Hydrargyri, unciam unam.
Acidi nitrici, uncias duas.
Ut fiat solutio; dein adde,
Olei ossium, *vel* Olei cetacei purificati, leniter cale-
facti, uncias duodecim.
Adde solutionem Hydrargyri, et probè tere, ut fiat
unguentum.

UNGUENTUM E PLUMBO.

℞ Olei olivarum, uncias octo.

Ceræ albæ, unciam unam semis.

Acetatis plumbi lævigati, drachmas duas.

Acetas plumbi cum portione olei triturerur, dein
Cera cum oleo reliquo calefacta addatur, agitando
massam, donec frigescat.

UNGUENTUM EX OXYDO HYDRARGYRI RUBRO.

R Oxydi hydrargyri rubri, drachmas duas.

Unguenti digestivi (*vel* Cerati albi) unciam unam
semis.

UNGUENTUM RESOLVENS.

R Unguenti hydrargyri nigri, unciam unam.

Saponis nigri, drachmas duas.

Camphoræ, drachmam unam.

Simul probè terendo misce.

Usus : Periostosis (tophi et nodi syphilitici); Tumor epidi-
didymidis, aut testiculi.

VINA.

VINUM ROBORANS AD BLENNORRHŒAM.

R Corticis Cinchonæ officinalis pulv., uncias duas.

Gallarum, drachmas duas.

Caryophyllorum aromaticorum drachmam semis,

Pulverisata infunde per biduum in

Vini rubri, librâ unâ.

Sæpiùs agitando.

Liquorem per subsidentiam depuratum effunde, et
massam residuam cum

Aquæ fontanæ, librâ unâ infunde per horam.

Cola, et misce cum priori.

Sumat cochlearia quatuor inajora ter quaterve de
die.

Massa residua cum eâdem quantitate vini et aquæ
tritâ, repetitis vicibus utiliter servire potest.

N. B. Dr. G. FORDYCE idem medicamentum laudat
in Blënnorrhagiâ.

VINUM TONICUM.

R Corticis Cinchonæ officinalis subtilissimè pulverisati,
unciam unam semis.

Infunde per biduum, sæpiùs agitando, in

Vini generosi unciis sedeciin.

Dein effunde liquorem per subsidentiam depuratum,
eique adde,

Olei Cajeput (ex foliis Melaleuca-Leucadendri destillatione obtenti), cum Sacchari albi unciâ unâ triti, guttas quadraginta octo.

Ætheris sulphurici alcoholisati, uncias duas.

Sumat uncias duas—tres, bis terve de die.

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- Lanfranc*, a surgeon of the thirteenth century; speaks of diseases of the genitals, i. 26.
- Lard*, oxygenated, sometimes readily cures primary syphilitic scabs and ulcers, ii. 201.
- Leber*, a professor of surgery at Vienna, his interesting observation on a fracture, in which the callus did not form until after the administration of mercury, ii. 100.
- Ledum palustre*. The infusion of this plant has been given with success in several cases of leprosy, by Doctors Odhelius and Biorland of Sweden, ii. 78.
- Lemaire, J.* a French poet, who died in 1524, has described the syphilitic disease, i. 41. 69.
- Leo Africanus*. This historian speaks in a very detailed manner of syphilis as observed in Africa in his time, i. 51.
- conida, de pudendorum morbis*, i. 21.
- Leontiasis*. This disease, of which mention is made by the,

- Greek physicians, appears to be a variety of elephantiasis, ii. 304.
- Leprosy*, or syphilitic lichens, ii. 75.
- Leprosy, tuberculous*, synonymous with elephantiasis. This disease complicated with syphilis, ii. 153. *et seq.*
- Leprosy, black*. A species or variety of elephantiasis, ii. 304.
- Leucorrhœa, sive fluor albus*. See *Blennorrhœa*.
- Lobelia syphilitica et longiflora*, plants of which the root is used in South America against syphilis, ii. 251.
- Læfser*, a German physician, has written very judiciously on the yaws and other complaints of hot countries, ii. 301.
- Lucius Apuleius*, speaks of some medicines against affections of the genitals, i. 19.
- Luissinus*, a Venetian physician, collected a great number of ancient works on the syphilitic disease, i. 13.

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- Mal de chicot, mauvais mal, gros mal, vilain mal, maladie allemande*. See *Disease, New, of Canada*, ii. 285.
- Mal de Soudan*, ii. 174.
- Maladies, Syphilitic*. See *Diseases*.
- Maladie des eboulemens*, synonymous with the new disease of Canada, ii. 286.
- Mandragora (Atropa Mandragora)*, pulverized root of, in the form of cataplasm, is recommended by *Plenk* against induration of the testicles, i. 236.
- Marcellus Empiricus*, physician to the emperor Theodosius, in the fifth century, mentions several affections of the genitals as well as remedies for them, i. 20.
- Marisca*. See *Excrescences, Syphilitic*.
- Marrubium vulgare*. An infusion of this plant has cured ptyalism, ii. 150.
- Martyr, Peter*, a learned man of the fifteenth century, was at Barcelona on the first return of Columbus from America; he does not say that the syphilitic disease was brought by the companions of Columbus, i. 48. The same author, in a letter to Arius Lusitanus, five years before the return of Columbus, speaks clearly of the syphilitic disease, 49.
- Mascagni*, a celebrated Italian anatomist. His work on the lymphatic vessels has informed us respecting the mode of operation in certain cases, by which syphilitic virus is absorbed, i. 389.
- Mentagra*, mentioned by Pliny. See *Scabs, Syphilitic, of the beard or chin*.
- Mercury*, is regarded as a specific for the cure of the syphilitic

- disease, ii. 39. Does not always cure it, 168. Often produces pernicious effects without curing syphilis, especially in hot climates, *ib.* Why it sometimes fails, 164. Most efficacious remedies in these cases, 183. *et seq.*
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- Mittier*, his pills, ii. 254. and 346.
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- Momordica Elaterium.* A cataplasm made of the root of this plant is recommended by Celsus against inveterate induration of the testicles, i. 235.
- Montagnana, B.*, who wrote in 1498, speaks of the syphilitic disease as unknown at that time, i. 38.
- Morgagni.* His dissections have instructed us as to the true seat of syphilitic blennorrhagia, i. 122. 124.
- Muchucunda* (*Pterospermum suberifolia*), a plant used by Hindoo physicians for curing syphilitic blennorrhagia; the flowers of this plant often cure the head-ache, i. 173.
- Muriate of Ammonia, mercurial.* See *Salts, mercurial.*
- Musa di Brasavola*, and several other authors, have recorded observations on *mercury in the metallic form*, found in different parts of the human body after death, ii. 126.
- Myrmecion.* See *Excrescences, syphilitic.*

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- Nitrate of mercury.* See *Salts, mercurial.*
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- Noel*, a surgeon at Rheims. His observations on the puncture of the bladder in the hypogastric region, i. 316.
- Nooth, Dr.* found that the alcohol or spirit of rosemary is efficacious against recent syphilitic ulcers, i. 368. Discovered that

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- Plummer*. His powder or pills, ii. 361.
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Vesicatory. See *Blister*.

Vigo, appears to have been one of the first physicians who administered mercury internally, ii. 36.

Virus, syphilitic or *venereal*. The nature of syphilitic virus is unknown, i. 5. A very small portion of this virus introduced into the body produces the greatest disorders, 7. A certain interval elapses ere it manifests itself, 9. It often remains long on the skin without acting, and without being absorbed, 10. In other cases it appears in a very short time, 9. It seems to have different modifications, 11. At the present day it generally produces more violent symptoms in cold than in warm climates, *ib.* The effects of the syphilitic virus appear to have been formerly much more violent than they now are, *ib.* The author's opinion on the propagation of this virus, *ib.*

W.

Walnut-shells, Green. The decoction and extract of this substance, have proved efficacious in some syphilitic diseases, ii. 234.

Ward, Dr. his White Drops. See *Nitrate of mercury*.

Warts. See *Excrescences, syphilitic*.

Water, depurative, or Pollini's decoction. See *Pollini*.

White Swelling. The English term for a species of tumour of the knees, i. 252.

Women, Pregnant. Particular treatment of the syphilitic disease in pregnant women, ii. 106. Whether mercury ought to be administered to a pregnant woman infected with the syphilitic virus; reasons in the affirmative, *ib*. Why mercurial frictions are not expedient, 107. The author proposes oxyde of mercury with liquorice or sugar as most suitable, *ib*. Precautions requisite in using the warm bath, *ib*. Inspection of the genital parts recommended, 108. If circumstances permit, the mercurial course should be deferred until after the delivery, *ib*. Pollini's decoction is the safest remedy for this disease in pregnant women, where serious reasons exist against the use of mercury. See *Pollini*.

Y.

Yaws, an endemic disease of Africa, especially on the Gold Coast, called by *Sauvages*, Frambæsia, ii. 297. It is common in the Antilles, where the French denominate it *Epian* or *Pian*, *ib*. Occurs though less frequently in North America, where the negroes are most subject to it, *ib*. It is very analogous to syphilis, as it manifested itself in the fifteenth century, but it only attacks a man once in his life; negresses inoculate their children with it; consequently it differs essentially from syphilis as it now manifests itself in Europe, 300. Parts of the body which it chiefly attacks, 298. At first it is often only a local disease, 300. How communicated, *ib*. The virus of the yaws sometimes remains long without producing any apparent symptoms, 301. Frequently a person's constitution is attacked without there being the slightest symptom on the genitals, 299. The yaws are cured in a very short time by means of mercury, 300.

FINIS.



